View

Operator Guide
for Rapid Eye Multi-Media Units

Rapid Eye™
Multi-Media

Rapid Eye™
Multi-Media LT

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V9	September 2004	Honeywell template
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Table of Contents

1   Running View

Preparation

Your Rapid Eye Multi system administrator (Multi SA) needs to prepare a Multi database before operators can run *View*. How to do so is explained in the *Admin User Guide*, part no. K5403.

1.1   Starting View

Figure 1. Shortcut for View, on the Windows desktop

➢**1 To start and log on to View**

1.   On your Microsoft Windows desktop, do one of the following:

• click **Start**, point or click to **Programs** and then **Rapid Eye Multi-Media**. Click *Rapid Eye Multi-Media View*.
• double-click the shortcut to *View.*

2.   In the logon dialog's **User ID** box, type the name of a Multi operator account. See fig. 2, below.

3.   If your Multi SA has assigned a password to the account, type it in the **Password** box.

4.   If a Multi-Media database (Multi db) was not selected during the installation of View, see your Multi SA for its type (Access or SQL), location (path) and name.

5.   Click **OK**. The *Rapid Eye Multi-Media View - Logon* window is displayed.

User account and password

Passwords can be assigned to a user account. Use of passwords is *optional*. How to setup passwords is explained in the *Admin User Guide*, part no. K5403.
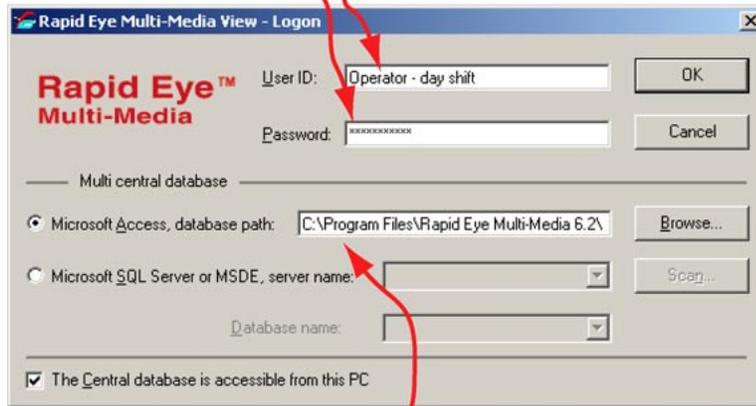
Fig. 2. Logging-on to a Multi system

1.2 View Window: the Sites Tab
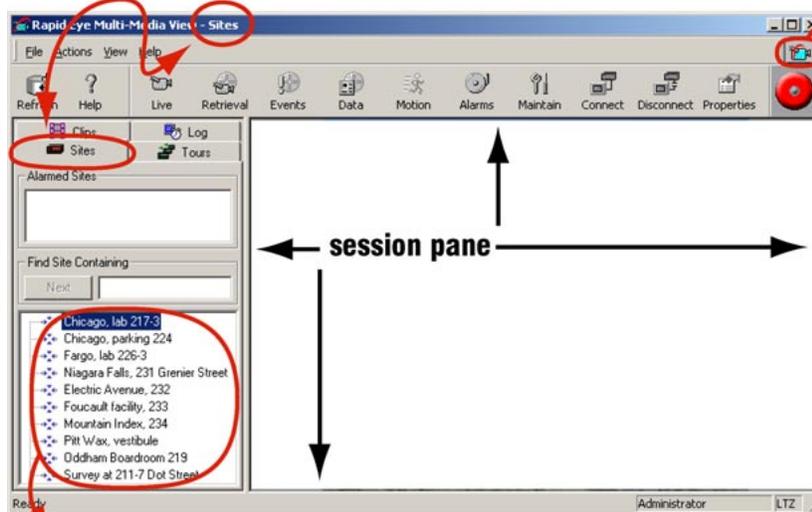
Fig. 3. On the **Sites** tab, Multi sites are either Multi-Media units and/or older Multi units.

action tabs. The *Sites* tab is where you begin. See figure 3. Clicking other action tabs—Tours, Log, Clips—displays different buttons on the toolbar.

session pane. Where video and text are displayed. Sessions are shown at operator's discretion. Sessions include: Live, Retrieval, Maintenance, Motion search, Event search and Data search sessions. Alarm sessions can appear as alarms are triggered.

menus. The menus list commands for View.

1.2.1   Selecting a Multi Site

A "site" is a Multi-Media unit or Multi unit that is connected and operational.

➢**2 To select a site**

- After starting View, the **Sites** action tab and its toolbar are displayed by default. Click a "site" name listed on the tab. For lists of sites that are long, use the Quick Search.

Missing site

If the site is not listed, click Refresh, as explained 1.3: *Your Account Information*. If the site still does not appear in the list, ask your Multi SA if an entry for the unit was made in the Multi database or if your View Operator Account let's you use the site.

1.2.2   Site: Quick Search
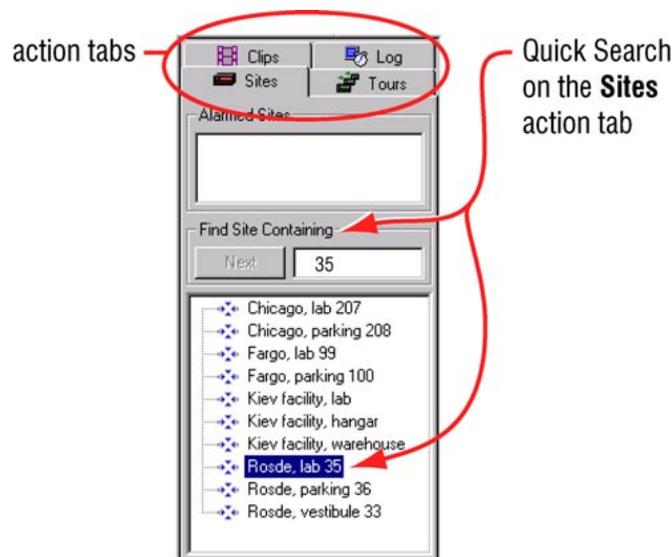
Fig. 4. Find Site... box. To locate a Multi-Media unit named "Rosde lab 35", type "35", "sde" or other text fragment in the box.

➢**3 To search through long lists of Multi sites**

1. Click the **Sites** tab if it is not selected.

2. In the **Find Site Containing** box (see figure 4), type a few characters that follow each other in the site's name. The first site where this combination of characters occurs is selected.

- You can type any sequence of characters in a site name: they can be at the beginning, middle or end of the name. For example: to locate "Rosde lab 35", you can type either "35" or "sde".

- You have the option of typing in more contiguous characters of the site's name to narrow the search.

3. Once the site that you are looking for is highlighted, start a session.

1.2.3   Site Properties

A site's properties—name, location, and connection details—are controlled by a Multi SA. You can view, but not edit, a site's properties.

Finding out about a site's properties can be useful:

- to check if the time zone from which images are being obtained is correctly set

- to obtain a remote unit's serial number to report a malfunction

- to check the phone number on a dial-up connection, if the connection cannot be established.

➤4   To display a site's properties

1. Using Multi View, click a site on the Sites tab.

2. To view the properties, do one of the following:

3. Click in the Toolbar.

4. Either:

- Place the mouse pointer on a site: a message appears—like a "tool tip"—, showing information about a site.

- Right-click on the site name to view the shortcut menu and select **Properties**

- Click **Properties** on the Actions menu.

5. To close the *Site Properties* dialogue, click **OK**.

1.3   Your Account Information

➤5   To obtain the latest site list

Click the **Refresh** command on the View menu or the Refresh button.

Fig. 5. Refresh command button.

The **Refresh** command updates:

- the list of the sites and connections in your Multi-Media system

- information about your Multi user account

- site tours…

Your Multi SA can let you know whenever changes have been made to these items.

Using Multi-Media sites: restrictions

Your account to operate Multi-Media units can be restricted by your organization's Multi SA. Access to units can be denied. A time limit for operating units can be set. The time limit is shown when you connect to a unit, and a countdown shows how much time remains. The countdown is not shown when processing alarms: the time limit is cancelled while processing alarms.

Info: viewing your administrative information

Multi View makes your Multi account's information available. **Info** indicates the database file in use, its location, the name of the user account, the rights of the operator using the account, the status of alarm notification and more.

➢**6 To display the Information dialog**

- Click **Info** on the View menu.

1.4   Customizing the View Window

Screen real estate: hiding the toolbar and status bar

On smaller PC screens, real estate for video can be limited. Removing the toolbar and status bar can help free up more of the screen for video or other feeds.

The toolbar and status bar are displayed when you click their commands on the View menu and checkmarks appears (see figure 6).
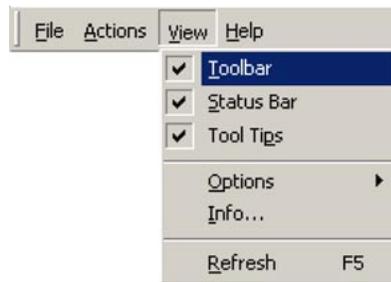
Fig. 6. The first two commands on the View menu can help show video from more cameras

➢**7 To give the session pane more screen real estate**

1. Click **Toolbar** on the View menu. See figure 6. When no check mark appears, the main view toolbar is hidden away.

2. Click **Status Bar** on the View menu so that no check mark appears. This hides the bottom of the View window.

➢**8 To return the toolbar and status bar to the work area**

1. Click **Toolbar** on the View menu so that a check mark appears. See figure 6.

2. Click **Status Bar** on the View menu so that a check mark appears.

Alternatively, you can move the Toolbar by dragging the two vertical bars at the far-left side of it. The Status bar cannot be moved.

1.4.1 Sites Tab: Toolbar Reference
Table 1
Sites toolbar

Command	Function/Session	Section
Refresh	To use the latest Multi database: rights in user account, sites added, modified or deleted, and so on.	1.3
Help	To display this guide in PDF format.	1.5
Live	To display live video from the site that is selected on the Sites tab.	2.1.1
Retrieval	To display recorded video, stored at a site.	3.1.2
Events	To search a site for events that are set to be silently recorded.	10.2
Data	To search for data from customer devices.	11
Motion	To search recorded video for motion. Note: works only if motion *detection* is enabled *before* video is recorded.	5
Alarms	To list alarms, if any, from or about a site.	6.3.1
Maintain	To set alarms, to configure the connected cameras, and so on.	6.7
Connect	For connecting to a site without running a session; mostly for dial-up, to save time when starting sessions.	n/a
Disconnect	To end the connection to a site, giving you a quick, one-step way to end all sessions involving that site.	n/a
Properties	To list some of the communication settings for a site.	1.2.3

1.5 More About View

Index

The topics in this guide are indexed; see the Index, starting on p. 14–1.

Learning Rapid Eye Multi-Media View

The View procedures that you will use most often are documented in this user guide. They are grouped by tasks, so that you may start using View as quickly as possible. Reference information is included as needed, usually at the end of subsections.

Other guides

Other guides by Honeywell are available after installing View software:

Honeywell, *Please Read This First!*, K9700

———, *Multi-Media Software: Software Setup Instructions*, K5401

These user guides are available in Adobe's portable document format (PDF), on the View operator's PC, by clicking:
Start / Programs / Rapid Eye Multi-Media 6.2 / Documentation / …

Web site

http://www.Honeywellvideo.com

Customer Support

For installation questions, or for ordering and parts information, have your Multi SA contact the vendor or distributor of the system.

For software training, or for reporting a malfunction, the Multi SA can call Honeywell Multi Technical support at 1 (800) 796–2288.

Historical note about *Multi-Media unit*

You may find other names for a *Multi-Media unit* in older editions of user guides. Terms no longer used are: data acquisition unit (DAU), remote video unit (RVU) and remote unit (RU). They are recalled here to avoid confusion when talking about older versions and models, such as *Multi* and *Plus* units, or for dealing with technical support.

Please continue.

2   Live Video

Live video versus recorded video

Using a *Live* session, you can access and monitor the video feed of many cameras at once, and even access many Multi sites, all at once.

This section shows how to:

- obtain live video
- use cameras that can pan, tilt and zoom
- end a Live session.

See also

recorded video. See 3: *Recorded Video*, starting on p. 3–1

data. See 11.1: *Live Data*, on p. 11–1.

audio. See 8.2: *Live Audio* on p. 8–1

> ⚠️ **On a dial-up connection: do not use audio. Video can be corrupted by using audio over dial-up. Live video can be combined with audio only on a network connection.**

2.1   Viewing Live Video

Process

Start by selecting a Multi site and then running a Live session. Select which cameras to use. Video reaches your PC until the Live session ends.

2.1.1   Starting a Live Session

➢9 To start a live session at a site

1. Run View; to do so, see 1.1: *Starting View*, on p. 1–1.
2. After selecting a site, do one of the following:

   - Click [Live] on the toolbar.
   - Double-click the site name. If a live session is already running, double-clicking the site name has no effect.
   - Right-click on the site name; on the shortcut menu that appears, click **Live**.
   - Click **Live** on the Actions menu.

3. Either:

    *   a Connection dialog appears; see figure 7, below. Select a connection, then click **OK**. A tear-away player then appears, as in figure 8.

    *   a tear-away player appears in the session pane and a list of streams (cameras and other data devices) is displayed; see figure 8.
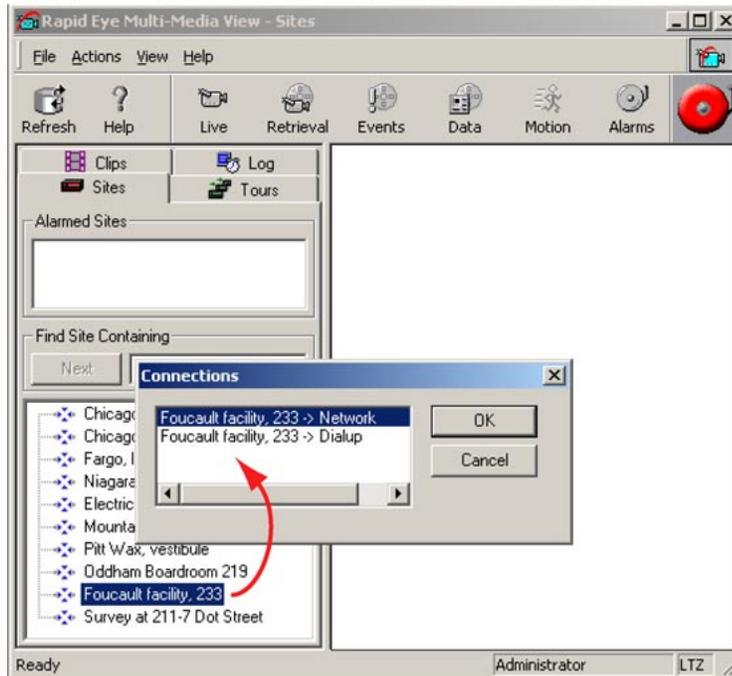

Fig. 7. Choosing a connection.

2.1.2 Selecting Cameras

"Stream" identifies the different feeds—video, audio or data—coming through a Multi-Media unit.

➢**10 To select live video feeds from a site**

1. In the *Stream List* dialog (see figure 8), select as many cameras as you need.
2. Click **OK**. Each live video feed is displayed in its own camera window.
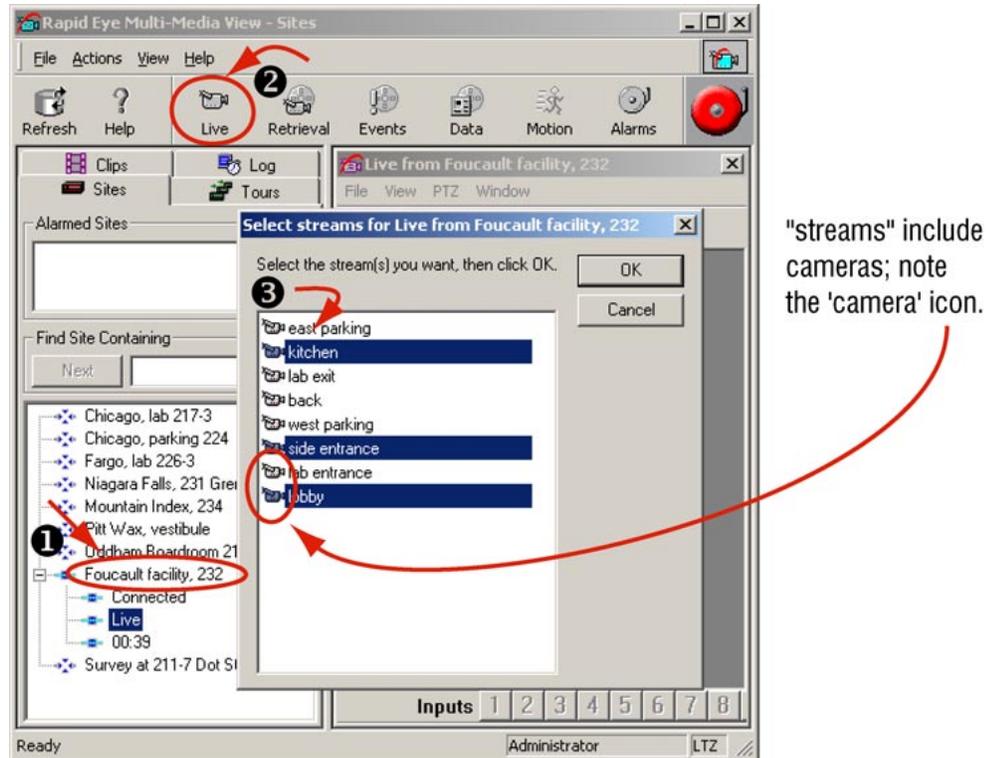
Fig. 8. Live session: connection icons (⚡) appear on the site list.
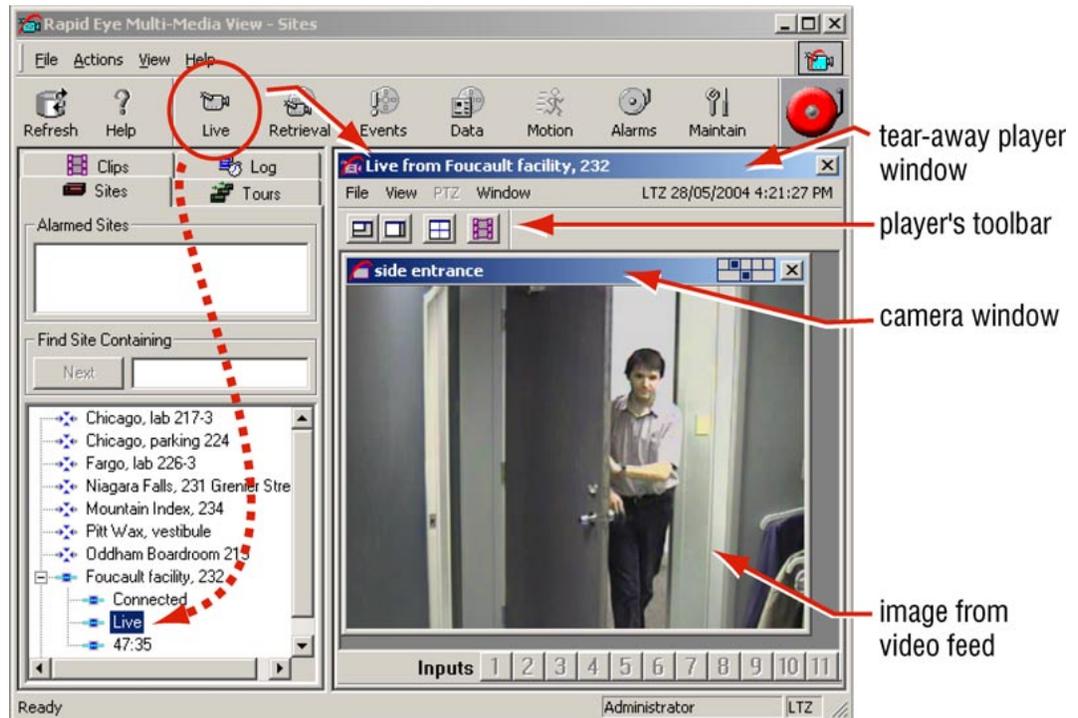
Fig. 9. Live video feed, from a camera named 'side entrance', at a site called 'Foucault facility, 232'.

➤**11 To move and size a tear-away player window**

- You can drag a player window from the View window. When dragged away, an asterisk is added to the title of the tear-away player's name.

➤**12 To return a tear-away player to its session pane**

Click either:

- . The **Embed** button. It appears when a tear-away player is dragged from the session window.

- **Embed** command, on a session's *Windows* menu.

A player returns to the session pane. When not embedded, an asterisk is added to the title of the tear-away player's name.

Renaming cameras

Your Multi SA has the option of renaming cameras from the default "Camera 1", "Camera 2"… and so on. See page 4–1, figure 34.

Printing an image

Printouts of images from a video feed can be made only during the retrieval of recorded video or when watching a video clip. See 7.4: *Stills*, on p. 7–7.

2.1.3   Managing Video Feeds

➤**13 To move, size and tile camera windows**

1. Each tear-away player has its own menu, listing commands for the orderly display of camera and text windows.

2. Individual feeds can be dragged and resized within a session window, as needed.

➤**14 To discard a video feed**

- Close the video feed's *camera window*. See figure 10. Ending a live session discards all video feeds.

Closing unnecessary camera windows can increase the speed of video feeds from that site, most noticeably when connected using dial-up.

➤**15 To reopen a closed camera window**

1. Display the site's Stream List by clicking **Add Stream** on the player's *File* menu, for a list of unused video feeds. You can see a Stream List in figure 8, on p. 2–3.

2. Choose one or more cameras.

3. Click **OK**. You may have to use the scroll bars to view the newly opened window.
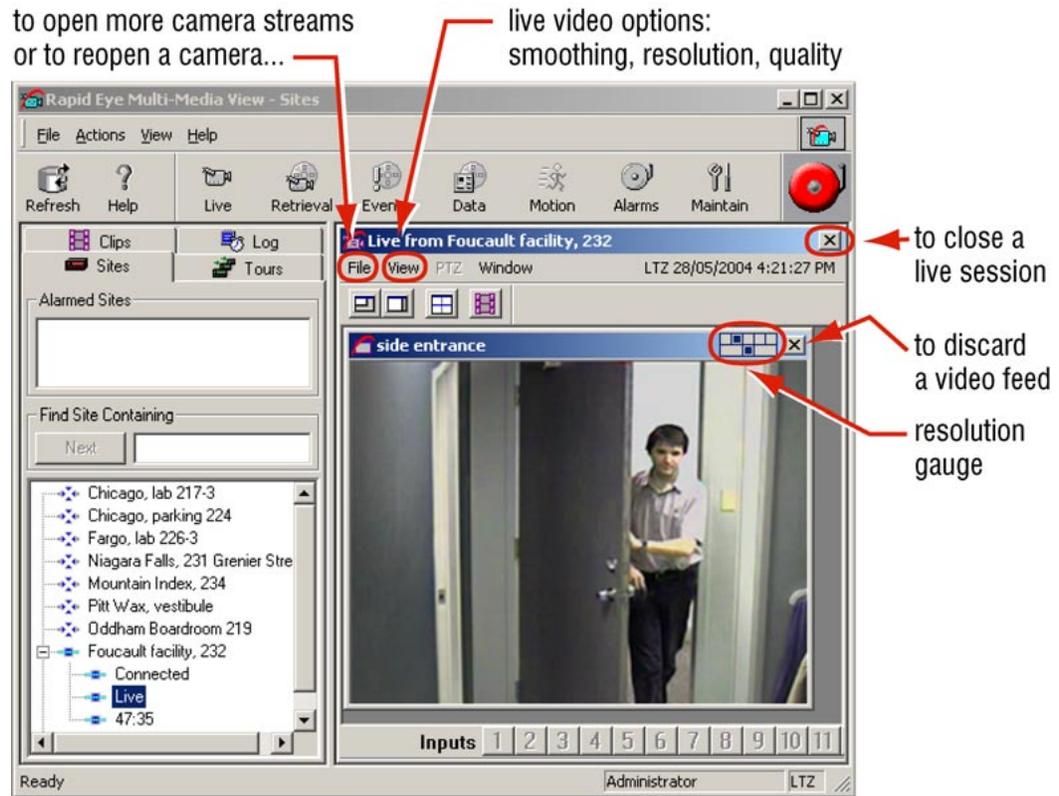
**Fig. 10.** Locating commands to manage video feeds.
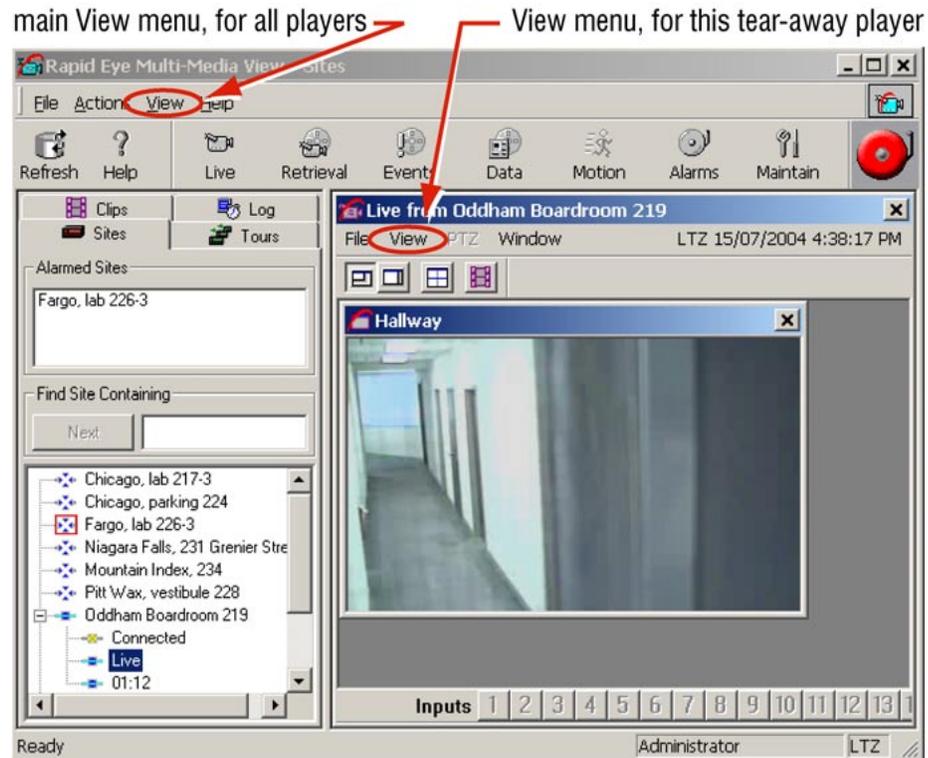
Fig. 11. The "View" menus: a "main" one, in the View window, and in each player.

➢**16 To toggle the size of a camera window/data window**

- Double-click the title bar of a camera window. The camera window quadruples in area; its video is now a "double-sized stream". To return the camera window to its original size, double-click the title bar again.

2.1.4   Video Smoothing and Quality

Video smoothing

Smoothing markedly improves the display of video on a PC monitor. Smoothing is not recorded; it is an effect that you can apply to live or recorded video. It is applied globally to video feeds from every site that the operator can access.
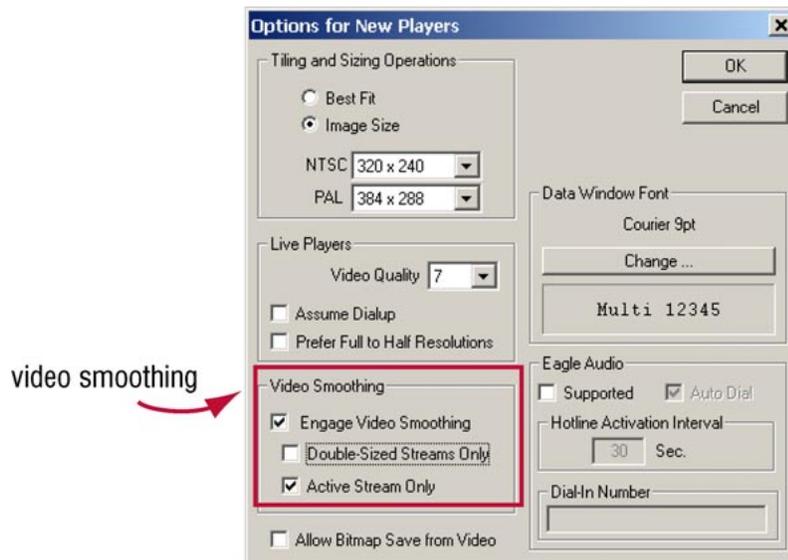

Fig. 12. Video Smoothing is off by default, to avoid taxing slower PCs.

➢**17 To change the video smoothing default**

1.   While running View, click **Options** on the main *View* menu.

2.   Click **New Players**. The *Options for New Players* dialog appears. See fig. 12.

3.   Click **Engage Video Smoothing**.

4.   You have the option of removing the settings of **Only on Double-Sized Streams** and/or **Only on Active Streams**.

5.   Click **OK**. The default is set.

➢**18 To override the video smoothing default, on only one player**

1.   While running either a Live or Retrieval session, click **Options** *on the* View *menu in the player.* See figure 11.

2.   Select **Video Smoothing**. The default(s) for video smoothing are displayed.

3.   Click an option to toggle its value.

4.   The player returns to the default when the session is disconnected.

Video quality: Live sessions

Video quality while *monitoring* live sessions can be lowered on low-speed dial-up connections to improve the transmission time of images. It can also be heightened on one camera for more detail, as needed.

The Video quality of recording is customized globally.
Once video is recorded, its Quality setting cannot be changed. See 4.1: *Adjusting a Video Feed* on p. 4–1.

➤**19 To set the Video Quality on one camera**

1. Do one of the following:

- right-click in a camera window. A menu appears showing **Video Quality**.
- View->Options->**Video Quality**.

2. Place the mouse pointer on the **Video Quality** command, slide to another value and click.

➤**20 To set the Video Quality on all cameras used in a player, for that live session**

- All cameras can be set at once by pressing and holding the **CTRL** key on the PC keyboard, while customizing a **Video Quality** setting.

2.1.5   Customizing the Time Display

Time reference

You have the option of displaying time as Universal Coordinated Time (**UTC**), or showing the Multi-Media unit's "remote" time zone (**RTZ**) or the View operator's own local time (**LTZ**). Check if the PC's clock is set correctly before doing so.

"UTC" is also known as Greenwich Mean Time (GMT).

➤**21 To set the date and time on an operator's PC**

1. In the *Microsoft Windows Control Panel*, double-click the **Regional Settings** icon.
2. Click the **Time** tab; set the style, separator and symbols as required.
3. Click the **Date** tab; set the *Short date* style and *Date separator* as required.

➤**22 To set the time reference on an operator's PC**

1. Using *View*, on its main *View* menu (see figure 11) click **Options**, then **Time Reference**. The *Show Time Reference As* dialog is displayed.
2. Set the time display reference to either your *local* time zone (**LTZ**), the camera's *remote* time zone (**RTZ**) or to Universal Coordinated Time (**UTC**).
3. Click **OK**.
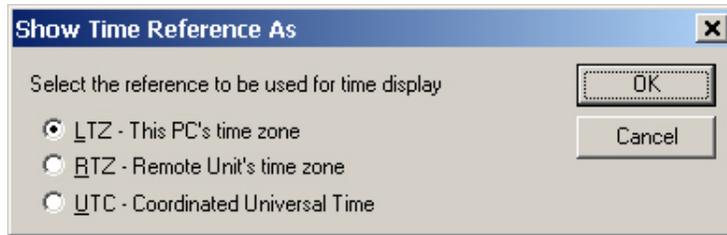
Fig. 13. Globally customizing the time reference.

> **Customizing the time reference does not change the time on your Multi-Media unit or your PC. Only the display changes. See also 6.9.1:** *Setting the Date for Correct Alarm Sorting***, p. 6–20.**

➤**23 To temporarily change a time reference**

Click **Set Time Reference** on the tear-away player's *File* menu. A *Customize Time Reference for Session* dialog is displayed to set the time display reference to either your **LTZ**, the camera's **RTZ** or to **UTC**. When you close the tear-away player, these temporary settings are reset.
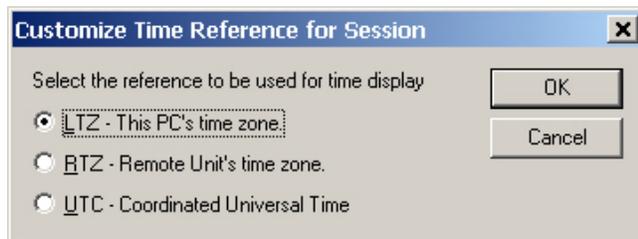
Fig. 14. Customizing the time reference for a session.

2.2   Resolution of Live Video

Dynamic resolution for Live video

Video resolution is *dynamic* for live sessions. As an operator makes a camera window larger or smaller, the resolution of its video image is optimized for window size and speed of delivery.

2.2.1   Monitor Settings in Microsoft Windows

Setting Microsoft Windows

For operators who plan to use View's higher resolution settings, Honeywell recommends that the **Screen area** (for the monitor) be set to "1280 by 1024 pixels" *or higher* while running View. Microsoft Windows is used to set this value, not *View* software.

Larger monitors

Larger computer screens and better video cards are assets when setting Microsoft *Windows* for high **Screen area** settings. Using *View* to work with video can also benefit from a larger viewing space and better hardware.
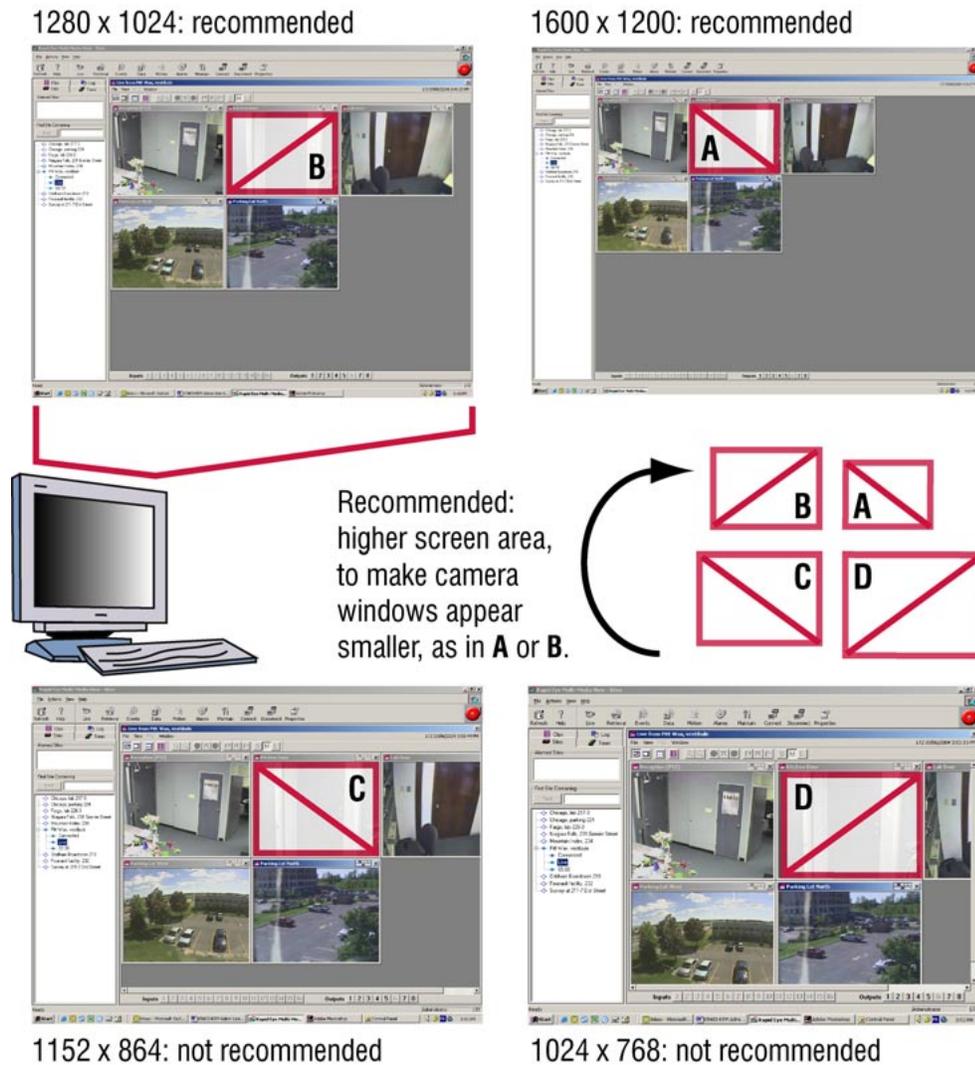
Fig. 15. Microsoft Windows' screen area settings. Note the change in size of the camera windows, as the screen area changes—camera 2 is highlighted for comparison. More cameras can be seen at once, and at higher resolutions (here five cameras at 320×240 resolution) when a recommended setting is used, as in **A** or **B**. Even at settings that are *not* recommended, video can still be viewed: some camera windows then extend beyond the monitor's surface. At any setting, camera windows can be dragged as needed and the player window scrolled.

➢**24 To change a PC monitor's Display Properties**

1.   On the Microsoft Windows' desktop, click **Start**. A list of menus appears showing the **Settings** menu.

2.   Click **Control Panel** on the Settings menu. A *Control Panel* window appears.

3.   Click the **Display** icon, in the *Control Panel* window. The *Display Properties* window appears.

4.   Click the **Settings** tab, in the *Display Properties* window.

5.   Drag the slider in the **Screen area**. Recommended values are listed in table 2.

Table 2
Microsoft Windows: Display Properties, Settings

Screen area (pixels)	Recommended by Honeywell for viewing higher video resolutions
1600 by 1200	yes
1280 by 1024	yes
1152 by 864	no
1024 by 768	no
800 by 600	no
640 by 480	no

* Video can still be viewed and worked with by using smaller screen area settings; see figure 15.

➢**25 To change a PC monitor's Refresh Rate**

1. On the Microsoft Windows' desktop, click **Start**. A list of menus appears showing the **Settings** menu.

2. Click **Control Panel** on the Settings menu. A *Control Panel* window appears.

3. Click the **Display** icon, in the *Control Panel* window. The *Display Properties* window appears.

4. Click the **Settings** tab, in the *Display Properties* window.

5. Click **Advanced…**, on the **Settings** tab. It takes a few seconds before a **General** tab and others are displayed in another window.

6. Do one of the following:

•   Click the **Monitor** tab. You can change the **Refresh Frequency**, as needed.

•   Click the **Adapter** tab, then click **List All Modes…**. You can change the refresh rate (Hertz) along with a screen area with one click, as needed.

7. Click **OK.** The tabs for advanced settings disappear and the *Display Properties* window is shown.

8. Click **Close**. For some settings, you need to restart your computer.

> **Higher refresh rates can alleviate eye fatigue when monitoring video over time.** Not all monitors and video cards support the recommended resolutions or offer various refresh rates. Consult the documentation supplied with your monitor and video card.

Recorded video

For *recording* video, your organization's Multi SA sets a resolution, depending on storage and application needs. Resolution settings for recorded video are discussed in the *Admin* user guide, K5403. The flexibility of setting resolutions independently for recording video contributes to optimal system performance.

> **The setting for the resolution of recorded video does not change when live video alters its resolution on-the-fly.**

2.2.2   Sizing Camera Windows

Optimal rendering

As an operator makes a camera window larger or smaller, the resolution of its video image changes. The resolution is optimized for window size and speed of delivery.

For live work, video at higher resolutions makes more use of the processing power of an operator's PC.

Sizing camera windows

An operator can size camera windows optimally for a given resolution.

➢**26 To size a camera window optimally for a resolution**

1. While running a Live session, right-click on a camera window's video. A small menu appears on the video. See figure 16.

2. Point to, or click **Video Resolution** to display a list of resolutions.

3. Click a value. The menu vanishes and the camera window is sized optimally.

Fig. 16. Menu available in a camera window during a Live session.

Resolution gauge: amount of resolution

After sizing a camera window, a resolution gauge reports if resolution is low, high or in between. The icon is shown in figures 17 (for NTSC) and 18 (for PAL).
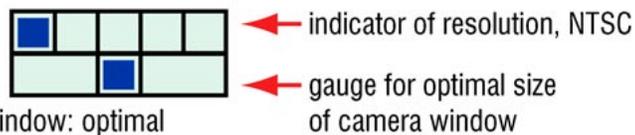
Fig. 17. Resolution gauge for NTSC cameras: one of five resolutions is dynamically assigned.
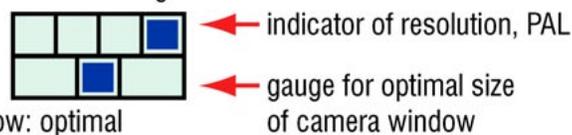
**Fig. 18.** Resolution gauge for PAL: one of four resolutions is dynamically assigned.

Set a Multi-Media unit to use either NTSC or PAL cameras; both types cannot be used on the same unit.

Resolution gauge: metering

When an operator sizes a camera window smaller or larger than optimal, marks appear in the rectangles of the resolution gauge. Figures 19 and 20 illustrate metering, when an operator sizes a camera window with the mouse. The icon's bottom row behaves the same way for NTSC and PAL.

Gauging:
camera window is
smaller than optimal.

Camera window is only
a bit smaller than optimal.

Middle square:
optimal size of camera
window, for the resolution.
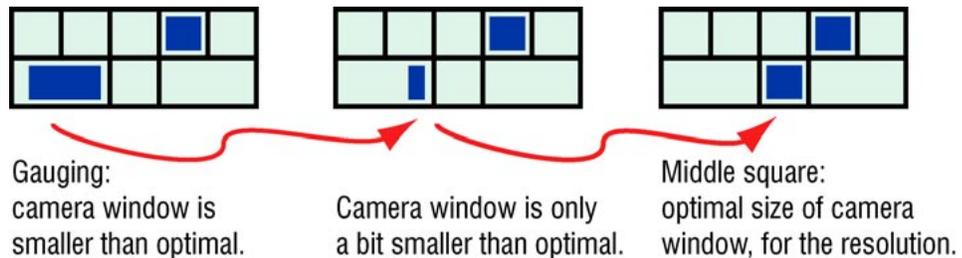
Fig. 19. Meter in resolution gauge: Camera window is stretched from smaller than optimal size to optimal size.

Higher resolution
is assigned
automatically when
camera window is
stretched to an
optimal size.

Gauging:
camera window
is a bit larger
than optimal.

Camera window
is much larger
than optimal.

Middle square:
optimal size of
camera window,
for the resolution.
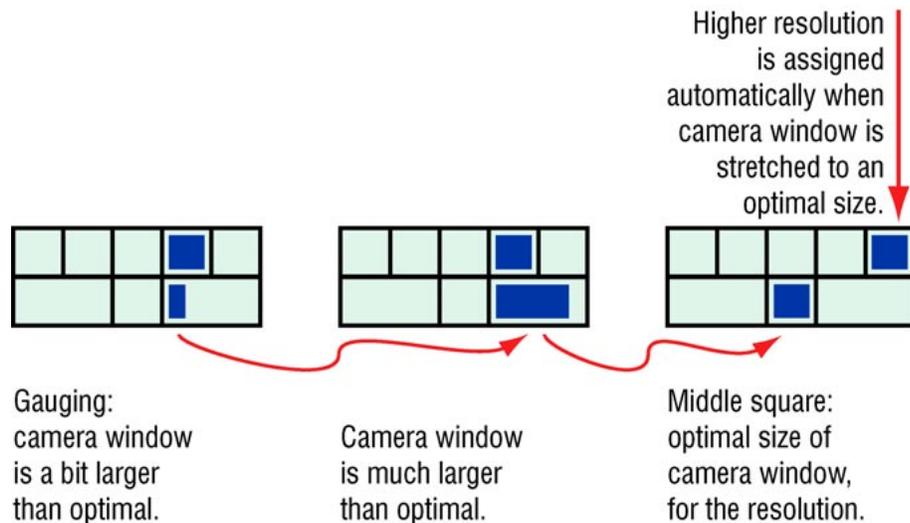
Fig. 20. The resolution gauge reports how far or close a camera window is from optimal size.

Maximum resolution: technical note

At the highest resolution (NTSC: 704 × 480 pixels; PAL: 704×576 pixels), View displays an image using all of the pixels obtained from a CCTV camera's signal.

2.2.3 Beyond Resolution

Other settings for good video

A camera's resolution is one of many components for obtaining good video. Use: View's settings for: **Quality**, **Picture** and Microsoft Windows' **Screen area**. The "best" setting for an application can vary; experimenting is worthwhile. If a video feed needs more improvement, consider testing or modifying a camera's focus, distance, angle, and lighting. See 4.2: *At the Source…* on p. 4–4.

2.2.4   Initial Camera Window Size

You can customize the initial size at which camera windows appear.

➢27 **To customize the size at which camera windows open**

1.   On the main View menu, click **Options**, then **New Players**. The *Options for New Players* window appears, as in figure 21.

2.   Select either **Best Fit** or **Image Size**. If you select **Image Size**, you can then choose a size for Multi-Media units using NTSC, PAL or both.


Fig. 21. Changing the size at which Camera windows appear.

2.2.5   Resolution Reference

NTSC resolutions: Multi-Media

Table 3
Multi-Media unit, **NTSC** video feeds: resolutions offered for viewing

unit's CPU (Intel)*	resolution (pixel × pixel)					
	legacy[†]	160 × 120	320 × 240	640 × 240	640×480[‡]	704×480[‡]
Pentium 4 (P4)	*	*	*	*	*	*
Pentium 3 (P3)	*	*	*			< =
P3 running older software	*				< =	n /a

* Use procedure ➢28, below on p. 2–14, to identify a Multi-Media unit's processor.
[†] The legacy setting (320×192) is the resolution used by the older "Multi" units. See figure 22. The "legacy" resolution is not assigned dynamically to live camera windows.
[‡] Not available on Multi-Media **LT** units, except during maximal zoom of one video feed while using LocalView, which automatically sets the resolution to 704×480 pixels, for optimal public monitor use.

Table 4
Resolution legend: **NTSC** camera (pixel × pixel).

resolution gauge	n/a					
resolution	legacy	160×120	320×240	640×240	640×480*	704×480*

* Not shown when connected to Multi-Media **LT** units.

PAL resolutions: Multi-Media

Table 5
Dynamic resolutions for **PAL** cameras

unit processor (CPU) type*	resolution (pixel × pixel)			
	192×144	384×288	704×288	704×576†
Pentium 4 (P4)	*	*	*	*
Pentium 3 (P3)	*	*		< =
P3 running older software	*		< =	unavailable

* Use procedure ➢28, below on p. 2–14, to identify a Multi-Media unit's processor.
† Not available on Multi-Media **LT** units, except during maximal zoom of one video feed while using LocalView.

Table 6
Resolution legend: **PAL** camera (pixel × pixel).

resolution gauge				
resolution (pixel × pixel)	192×144	384×288	704×288	704×576*

* Not available on Multi-Media **LT** unit.

Multi-Media unit's processor

➢28 To identify a unit's processor

1. Continue or start a maintenance session for the Rapid Eye site.

2. Click the **Hardware** tab. Next to **Main Board**, the unit's central processing unit (CPU) is listed—P4, P3 and so on.

3. You have the option of ending the maintenance session.

If you have access to the unit, you can interpret the unit's processor from the message displayed on the unit's blue screen, by using table 7.

Table 7
Unit's message

message	CPU	version*
Rapid Eye Multi-Media V6.2	P4	4.5
Rapid Eye Multi-Media V6.1	P4	4.4
Rapid Eye Multi-Media V5.2	P3	4.5
Rapid Eye Multi-Media V5.1	P3	4.4
ADEMCO Video Multi*Media V5	P3	4.1.0 to 4.3.0

* The version is listed in Maintenance on the System tab.

Older units

Older Rapid Eye units (Multi, Plus) use a "Legacy" resolution of 320 × 192 pixels. When viewing video from an older unit, Camera windows are smaller and no resolution gauge appears. See figure 22.
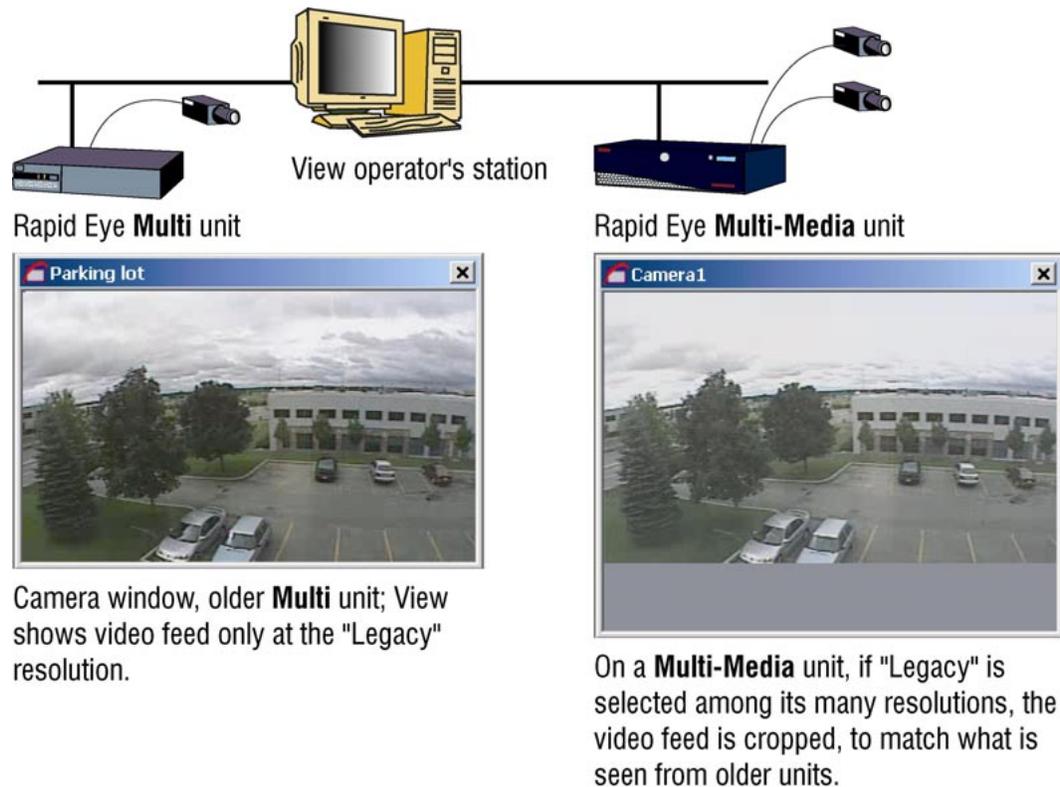
Fig. 22. Video feed from older unit appears in a smaller camera window.

Newer units set to legacy resolution

If resolution is set to "Legacy" on a newer Multi-Media unit, the picture is cropped and the resolution gauge does not appear. See figure 22. No cropping occurs at other resolutions.

2.3   Pan, Tilt and Zoom

Flexibility

Like most of the Multi security features, use of cameras that can pan, tilt and zoom (PTZ) is optional. Your Multi SA can inform you if PTZ cameras are connected to Multi-Media unit(s) in your system.

Before you can use a PTZ camera ...

To use the PTZ controls, your Multi SA first has to:

- add the **Use PTZ** right to a View operator account. This enables the PTZ toolbar in a live session.

    - and to -

- grant **access to the site**(s) assigned to operator(s) by their supervisors.

Your Multi SA sets View to control PTZ cameras. You will notice that "[PTZ]" is added to the title bar of a camera window when running a live session using a PTZ camera. Buttons for PTZ commands appear on the toolbar when a PTZ camera window is selected. See figure 23.

Fig. 23. Using the mouse to control PTZ cameras. As you move the mouse-pointer through a *PTZ camera window*, the pointer changes to a white octagon or to an arrow with a number.

➢29 To see PTZ controls in a live session

1. Run a live session at a site that has PTZ-type cameras. To find out how to run a live session, see procedure 9 on p. 2–1.

2. Click a camera window that displays **[PTZ]** in its name.

3. You can see the pan (i.e., turn) controls by moving the mouse-pointer in the camera window, as illustrated in figure 23.

➢**30 To pan/tilt a PTZ camera**

- Click the mouse when the pointer displays an arrow.

➢**31 To stop a PTZ camera that continues to pan/tilt**

1. Move the pointer to the center of the image until a small, white, octagon—a "stop" icon—appears.
2. Click the stop icon.

2.3.1 Using Preset PTZ Positions

Security effects of PTZ use on recorded video

Moving a camera affects the video being recorded by your Rapid Eye Multi-Media unit. Your organization may have security policies on the positioning and use of PTZ cameras.

➢**32 To return a PTZ camera to a preset position**

1. Run a live session at a site that has PTZ-type cameras. To find out how to run a live session, see procedure 9 on p. 2–1.
2. Display the PTZ camera's window, by selecting the camera when the live session starts.
3. In the PTZ camera window, right-click the mouse. A menu appears in the camera window next to the pointer.
4. Click or drag the pointer to **PTZ Preset**. A list is displayed.
5. Click one of the preset labels. The camera moves to the location set in the preset.

Changing a preset

The position of a PTZ camera when not being monitored can be assigned to preset #1. To record useful video when not monitored, change a "preset #1" in consultation with a Multi SA or your security officer.

➢**33 To set a PTZ preset**

1. Run a live session at the site with the PTZ-type camera that you want to set. To find out how to run a live session, see 2.1.
2. Using the PTZ controls, set the camera in the position that you need.
3. Click the **Save Presets** command on the tear-away player's *PTZ* menu. A list of **Preset 1** to **Preset 8** appear.
4. To save the position, click one of the "**Preset *n***" labels. The position is assigned to that label.

Position of PTZ camera after close of session

A security officer may need a PTZ camera to return to a set direction and zoom after use. See table 8. A Multi SA selects different settings using maintenance functions. See the *Admin User Guide*, K5403.

Table 8
Position after close of session, for PTZ cameras

Session ends...	Behavior
Stay put	The camera remains in the last position used by the operator. If it is panning, it keeps on panning; if it is not moving, it stays put. The "stay put" behavior makes available the **Return to Auto-iris** and **Return to Auto-focus** options.
Go to preset 1	The camera returns to "preset 1" configured using Multi.
Start tour 1*	Some camera models can keep moving when not in use by an operator.

* A "*PTZ* tour" differs from *site* tours; see 9: *Watching Site Tours*.

PTZ and motion search

Video recorded while a PTZ dome or camera can be searched for motion. When the camera is fixed, results are as expected; see 5: *Searching for Motion,* on p. 5–1. However, motion search is not effective on video recorded as a PTZ camera is panning, tilting or zooming. If you plan to use motion search on a PTZ camera, use "Stay put" or a preset after close of session. See table 8. Motion search can also be used to find out when a PTZ camera was moved, if that camera should be staying put.

2.3.2 PTZ Command Reference

Table 9
PTZ commands on toolbar

Button	Function	Result
	zoom in - zoom out	(+) subjects in the camera window appear closer (-) subjects in the camera window appear further away
	opens/closes the aperture* of the camera	increases/decreases the brightness of the video feed
	focuses the camera lens*	sharpens (F+) or dulls (F-) subjects in the camera window, depending on distance.
	governs the amount of panning, tilting and zoom	selects a "nudge" factor of small (S), medium (M) or large (L)

* Use and action of some functions may depend on dome manufacturer.

Ultrak KD6i domes & auto-aperture

Before an aperture setting can be changed manually on an Ultrak KD6i dome, the operator needs to turn **OFF** the auto-aperture. Auto-aperture is also known as "auto-iris".

2.4   **Ending a Live Session**

➤**34 To end a live video monitoring session**

- Close the tear-away player "Live from …" window.

  - or -

- Click **Disconnect** on the View toolbar. This also closes other sessions such as retrieval or alarm at the site.

This removes the "Live" indicator beneath that site, on the Site action tab. Ending a live session discards all video feeds. A live session also ends when you exit View.

Please continue.

3   Recorded Video

Recorded video

Using a *Retrieval* session, you can access the recordings from many cameras, and even access many Multi sites, all at once.

3.1   Viewing Recorded Video

Process

Start by selecting a Multi site and then running a Retrieval session. You can specify the date and time of the start of the video. Recorded video reaches your PC until you end the Retrieval session. Use procedures ➢35 to ➢39.

3.1.1   Selecting a Site

➢35   To select a site

1.   Run View; if you are not sure how to do this, see 1.1: *Starting View*, on p. 1–1.

2.   Click the **Sites** tab.

3.   Click a "*site*" name listed on the tab. See 1.2.1: *Selecting a Multi* Site, on p. 1–3.

3.1.2   Starting a Retrieval Session

➢36   To obtain a tear-away, video player

After selecting a site, do one of the following:

- Click [Retrieval] on the Toolbar.

- Right-click on the site name; on the shortcut menu that appears, click **Retrieval**.

  - or -

- Click **Retrieval** on the *Actions* menu.

Then, either :

- a tear-away player appears in the session pane; a list of streams (cameras and other data devices) is displayed; see figure 24.

  - or -

- a Connection dialog appears *if there are other, optional connections* to a site. Select a connection, then click **OK**. A tear-away player then appears with its streams, as in figure 24.

You can run retrieval and live sessions concurrently, from one or many sites.

3.1.3   Specifying the Start Time

When you start a Retrieval session, Multi automatically sets the start date and time to the nearest minute. You can change the start of a Retrieval session.

You have the option of specifying the beginning date/time of the retrieval session before or after selecting video feeds.

➢**37 To type the start date and time of a retrieval**

1. In the Stream List dialog, click the part of the date or time that you want to change in the **Retrieve from** boxes.

2. Use the arrow keys on your keyboard to change the number, or type a number that you want.

3. Repeat these steps as needed.

Fig. 24. As a Retrieval session is established, connection icons ( ) appear on the tree listing the sites.

➢**38 To set the date of a retrieval with the calendar utility**

1.   In the Stream List dialog, display the calendar utility by clicking the arrow next to the date box. See figure 24, above.

2.   Click a date in the calendar. To go to another month, click the arrow keys next to the month/year heading in the utility.

3.1.4 Selecting Cameras

You have the option of selecting cameras before or after specifying the beginning date/time of the retrieval session.

➢**39 To select feeds of recorded video**

1.   In the Stream list dialog, select as many cameras as you need. For your convenience, all of the video, audio and text streams are pre-selected.

2.   Click **OK**. Each feed of retrieved video is displayed in its own camera window.

3.2 Controlling Playback

A retrieval session automatically adds the playback toolbar to its tear-away player. The playback controls for viewing recorded video are conveniently grouped on a toolbar.
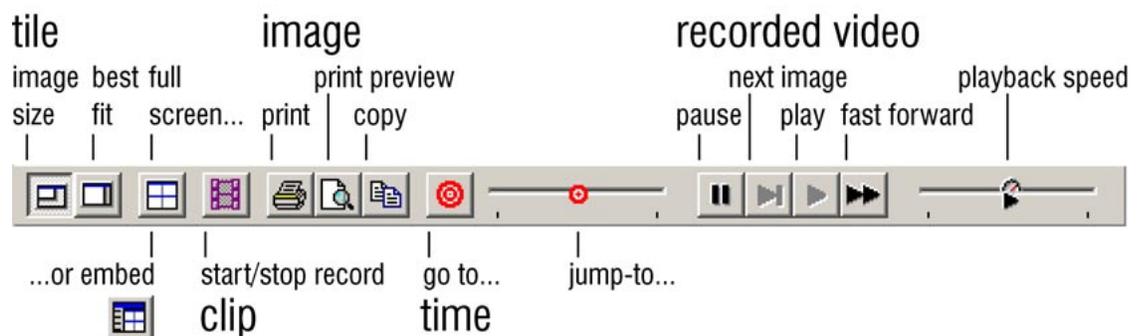
Fig. 25. Playback toolbar

3.2.1 Playback Speed: Slider

Fig. 26. Setting the playback speed slider to ten times the normal speed.

➢**40 To scan a recorded video feed more quickly**

•   Drag the speed slider to the right of its center position. The slider's speed setting appears as a tool tip (see figure 26).

➢**41 To slow down and pause a recorded video feed**

•   Drag the speed slider to the left of its center position. Sliding it to the very left pauses the video.

Dial-up connections cannot achieve playback speeds much greater than 2x, even if the Speed Slider is set at higher values.

3.2.2 Skipping Through Video

For quickly spotting recorded video, use the skip-to-time slider.

➢**42 To spot video by skipping through it**

- Drag the skip-to-time slider to the right of its center position.

The amount of skip appears as a tool tip on the slider. See figure 27. After using the time slider, the time in a Camera window caption changes and the skip-to-time slider returns to a central, "Now" position. Skipping can be combined with playback speed (see above) to optimize scanning of video.

Fig. 27. Skipping to a later time.

➢**43 To return to an event you have just seen**

1. Set the speed slider to scan the video at a comfortable speed.
2. Jump to a time before the event by repeatedly dragging the time jumper to the left of its center position by small amounts.
3. Place the mouse pointer above the pause button.
4. When the event occurs, click pause.

"Top-of-the-minute" means that the jump-to-time slider rounds partial minutes to the earliest time.

Go to

When you know the time of the recorded video that you need, click **Go to**. This displays a *Go To a Specific Time* dialog for typing a date and time (see figure 28).
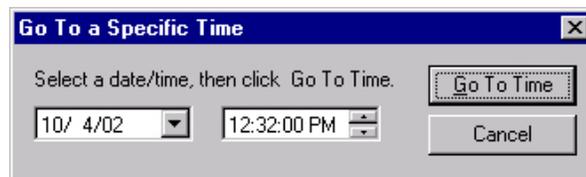
Fig. 28. Go to viewing video recorded at another date and time

First available video, sound or data

later media. If an operator requests video from a time at which the unit was not recording, the first image *after* the requested time is displayed. The same applies to data and sound. *Later media* is indicated by an icon that flashes in the upper-right corner of the *Retrieval* window to indicate that what is being monitored is *later* than the "from time" that the operator requested.

Fig. 29. The later media indicator resembles a clock face.

Power outages and so on, can temporarily stop a unit from recording. When recording resumes, there is a "hole" in the video archive. These holes can cause the later media indicator to appear.

➢**44 To obtain a report on later media**

- If after skipping through video (see above) a later media indicator appears and flashes, click its clock-face icon. A report appears, as in figure **30**. Right-clicking hides the icon and no report is produced.
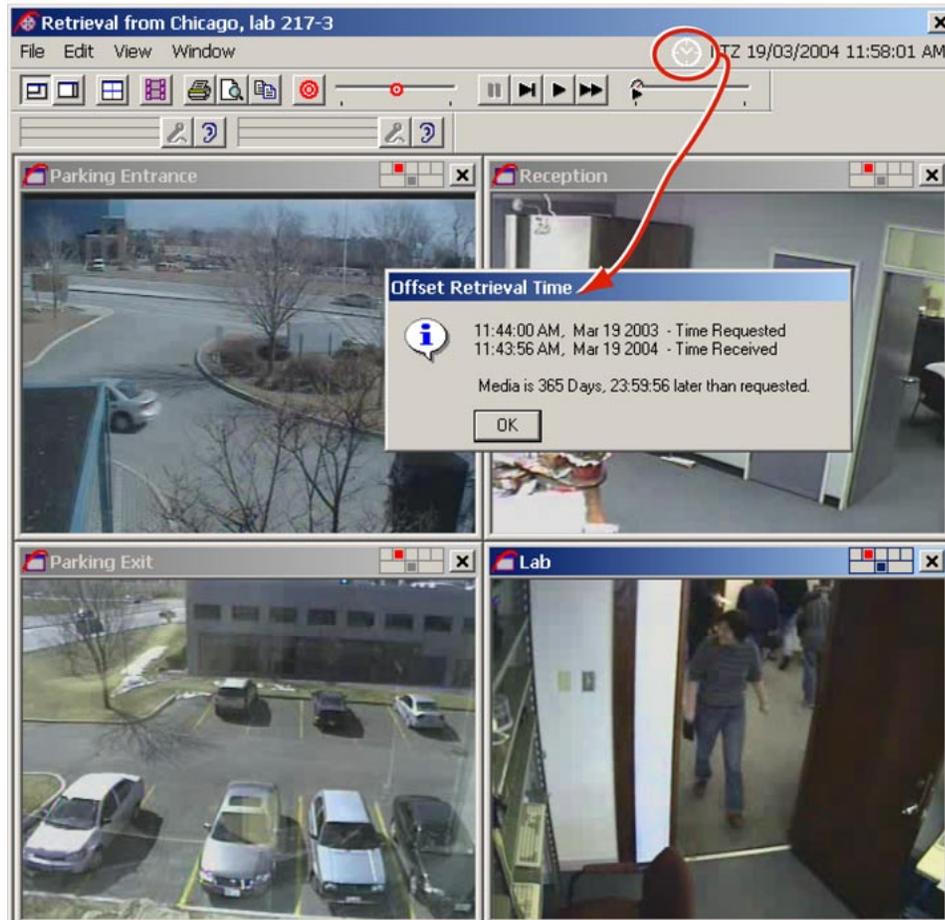
Fig. 30. Obtaining a later media report.

3.2.3   Top-of-the-minute

Skipping

Skipping to "two minutes later", from 10:02:57 brings you to 10:04:00, the *top of the minute* (not 10:04:57.) The same applies to jumping to later/earlier times using other intervals. See table 10 for more examples.

Table 10
Jump-to-time results

recorded video (time)	tool tip (text)	jumps to... (time)
10:02:02	2 minutes later	10:04:00
10:02:57	2 minutes later	10:04:00
10:02:02	2 minutes earlier	10:01:00
10:02:57	2 minutes earlier	10:01:00

Requesting video from many cameras

Since images from many cameras may need a few seconds more to appear, retrieving video from many cameras at once offers images from slightly *before* the top of the minute of the "Go to time" you request. For examples, see table 11.

Table 11
"Go to" results

go to time (input)	cameras*	obtains video starting from ... (time)
10:02:30	1	10:01:59
10:02:30	4	10:01:56 to 10:01:59

* On systems connected to many cameras, selecting one of the higher numbered cameras also slightly pushes back the time of the first image obtained.

3.3   Resolution of Recorded Video

Optimal size for camera windows in a Retrieval

During a Retrieval session, an operator can size camera windows optimally for the resolution at which recording was made.

➤**45   To size a camera window optimally for a resolution**

    1.   While running a Retrieval session, right-click on a camera window's video. A small window appears on the video listing **Image Size**. See figure **31**.

    2.   Click the value that matches the "Recorded at $n \times m$" value. The menu vanishes and the camera window is sized optimally.

> **Recorded video cannot be retrieved at a higher resolution than the one at which it was recorded.**
> Video is recorded at one, **set** resolution, which can be lower than those viewed in a live session. The resolution for recorded video is chosen by your organization's Multi SA.
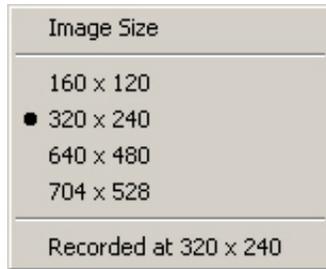
Fig. 31. Image size: menu and report, available in a camera window during a Retrieval session.

Resolution gauge: the resolution at which the recording was made

During a Retrieval session, a resolution gauge reports if a camera window's size is smaller-than-optimal, optimal or greater-than-optimal for the recorded resolution. The icon is shown in figures **32** (for NTSC) and **33** (for PAL).
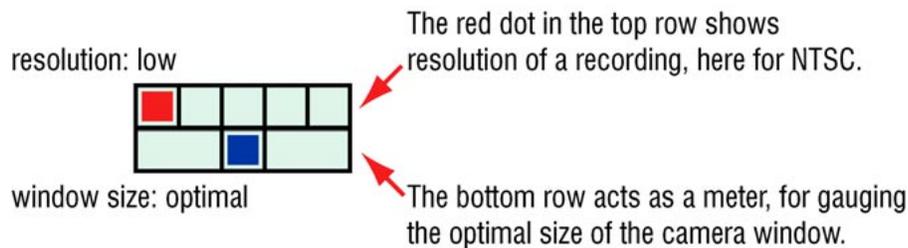
Fig. 32. Resolution gauge for NTSC: indicates resolution setting for video recorded by that camera.
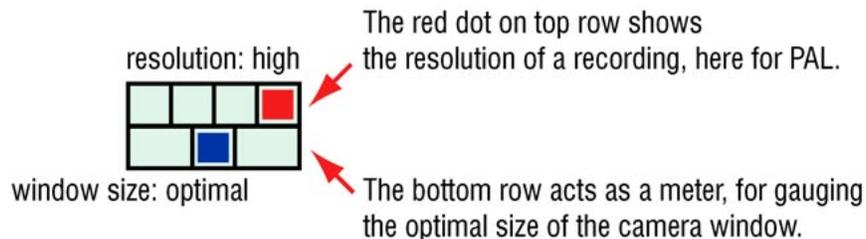
Fig. 33. Resolution gauge for PAL: indicates resolution setting for video recorded by that camera.

Set a Multi-Media unit to use either NTSC or PAL cameras; both types cannot be used on the same unit.

The resolution of the recorded video is shown by the resolution gauge. See tables **12** and **13**. The red dot in the upper row of the icon indicates that the resolution applies to recorded video.

Table 12
Recording: resolution selection for **NTSC** camera (pixel × pixel)

resolution gauge	160×120	legacy* n/a	320×240	640×240	640×480[†]	704×480[†]

* Legacy, used by older Multi units, is included for compatibility. This setting has no icon.
[†] Not available on Multi-Media **LT** units.

Table 13
Recording: resolution selection for **PAL** camera (pixel × pixel)

resolution gauge	192×144	384×288	704×288	704×576*

* Not available on Multi-Media **LT** units.

3.4   Ending a Retrieval Session

➤**46 To end a recorded video monitoring session**

Do one of the following:

- Close a "Retrieval from [*site name*]" window.

  - or -

- Click **Disconnect** on the Toolbar. This also closes other sessions (e.g., live video, retrieval, alarm) at the site. On the Site action tab, beneath that site, the "Retrieval" indicator is removed.

Exiting View also disconnects sites.

See also

audio. See 8.3: *Recorded Audio* on p. 8–2.

data. 11.1: *Live Data*, p. 11–1.

Live Video. 2.0, p. 2–1.

scheduling. See 12: *Scheduling*, p. 12–1. A Multi-Media unit can be scheduled to suspend the recording of video feeds.

4   Troubleshooting Video

4.1   Adjusting a Video Feed

Camera attributes of video feed

To adjust the video feed of cameras, ask your Multi-Media system administrator (Multi SA) or View operator *that has the right to run maintenance sessions*. Video feeds are adjusted **individually for each camera** while running a maintenance session.

You can adjust a video feed's:

- brightness
- contrast
- hue
- saturation
- gain (**AGC**)
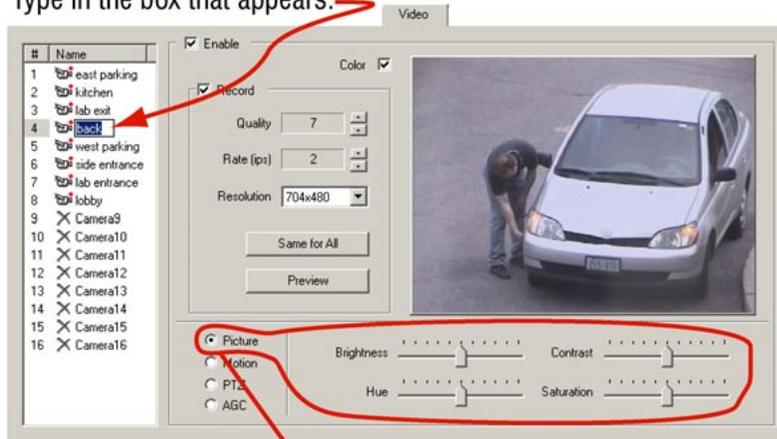
Fig. 34. The Motion and PTZ selections show different controls.

Honeywell recommends you leave the gain to automatic.

To do so leave/set a checkmark in the **AGC** box on the Video tab, during a maintenance session.

The cameras connected to a Multi-Media unit are detected automatically. You can name a camera and adjust a camera's picture settings during a maintenance session.

➤**47 To configure a Rapid Eye site's camera(s)**

1. Run a maintenance session at the site.

2. Click the Video tab and adjust Picture controls as needed. See figure 34. The adjustments are made on the fly; you do not need to click the **Apply** button, as for older Multi units.

3. You have the option of renaming cameras as shown in figure 34.

Right to change camera settings

A View-operator account may not have the right to run a maintenance session to modify a camera's configuration. Ask your Multi SA about account rights and camera settings.

Honeywell recommends that changes to camera settings be tested by running Live and Retrieval sessions, by a View operator or by the Multi SA.
Extreme settings can produce recorded video that might not meet your organization's security needs.

4.1.1   Configuration Tips

Common sense caution

The flexibility that Multi offers lets you configure the system beyond the capacity of Multi to perform to your configuration specification. In these situations, you will observe slower live video and other symptoms of an overtaxed system.

In a straightforward usage situation, such as when Multi-Media unit is used as a Digital Video Recorder (DVR), recording rates can reach those listed in table 14:

Table 14
Multi-Media unit recording rates

capture cards in unit	images per second* per unit
1	20
2	40
3	60
4	80

* This ideal maximum depends on the complexity and motion of images.
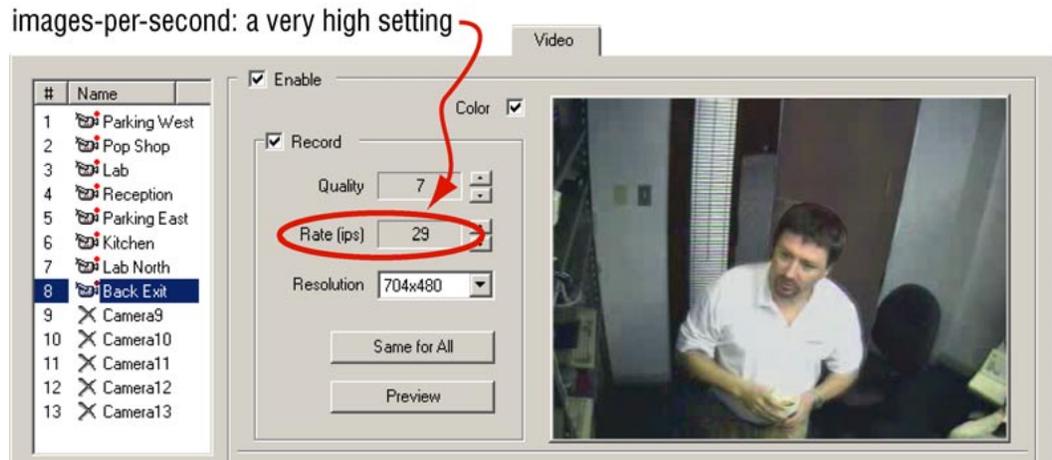
Fig. 35. High recording rates can slow live sessions.

System priority

If overtaxed, the priority of a Multi-Media unit is always to capture and store video, audio, data and alarms. This may result in slower service to View operators. If the video you are observing appears sluggish, Honeywell recommends that a Multi SA:

- **Set similar recording rates for all cameras.** Try to set up similar recording rates for all cameras. For example, setting a recording rate to 1 or 2 fps for all cameras lets Multi perform image capture efficiently. A Multi-Media unit will not work as efficiently if you set some cameras to rates of less than 1 fps and other cameras to higher rates.

- **Motion detection.** Enable motion detection only on cameras where you need to monitor motion.

- **Data recording.** When enabled, rules to log events or generate alarms should only be set for important data. Rules that generate many alarms can slow performance.

- **Close unnecessary camera windows.** Fewer open camera windows increases the speed of the other video feeds being displayed from that site. To discard a video feed from monitoring in a Live session, close its Camera window; see figure 10 on p. 2–4, in section 2.1.3: *Managing Video Feeds*.

- **Set Recording Rate to a lower number.** See figure 35. If you have a configuration that is putting lots of demand on a Multi-Media unit, set your total recording rates to not exceed a total of 32 fps for all cameras combined. This will reserve some hardware capacity to deliver all of the other services that are being asked of the Multi-Media unit.

Slow video due to other software

View makes use of Windows video resources and your PC's CPU. Other software that makes heavy use of these resources—software for: graphics, CAD, music listening—can hamper the delivery of video to your desktop. Network intensive applications—large downloads, backups can also slow things down. Neither affect the recording of video, only its delivery.

4.2 At the Source…

Cameras in the environment

Normal operation of View can reveal weaknesses in the position of cameras. Video surveillance can be hampered by:

- **blind spots.** Mobile equipment, vehicle docking, renovation work, and so on.

- **environmental lighting.** a camera can be rendered ineffective by direct sunlight, artificial lighting or their opposite, darkness.

- **environmental conditions.** Condensation, excessive heat or cold, even a dirty camera lens, due to dust or grease can be common over time and require onsite maintenance.

Report problems with camera position to your organization. A discussion of good camera position, corrective photography, and so on, are beyond the scope of this guide. For such background questions, see reference works such as:

- Kruegle, Herman, *CCTV Surveillance: Video practices and technology*, Butterworth–Heinemann, Newton (MA), 1995

- Newman, Oscar, *Defensible Space: Crime Prevention Through Urban Design*, Macmillan, New York, 1973

5 Searching for Motion

5.1 Setup

Before you can use motion search, your Multi SA needs to run a maintenance session to enable **Motion detection** for each of the cameras whose video may eventually be searched for motion.

➤**48 To enable motion detection**

- See the *Admin User's Guide*.

> **Motion search works only if "motion detection" was enabled during the recording of the video that you plan to search.**

Fig. 36. Motion button, for starting a Motion session.

Starting a Session
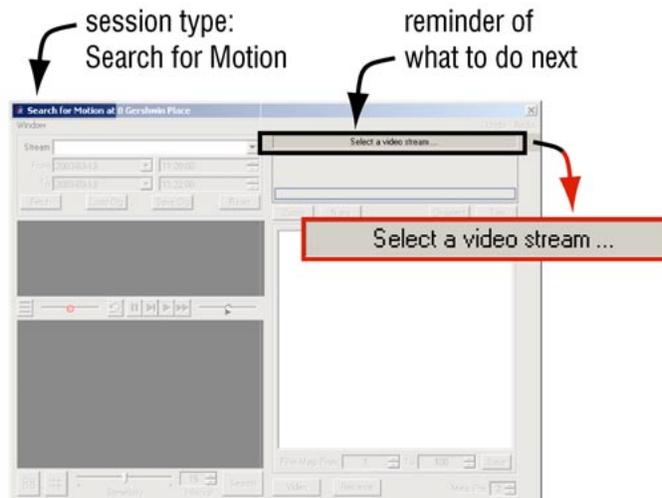
Fig. 37. Online reminder of what comes next when searching for motion.

➤**49 To start a Motion Search session**

On the *Site action tab*, either:

- right-click the name of the site you plan to search. Click **Motion** on the menu that appears.

- click the name of the site you plan to search, then the **Motion** button on the View toolbar.

A "Search for Motion at [sitename]" session appears in the session pane.

Contextual help

A reminder of the next step that you need to take is displayed near the upper-right corner of the Search for Motion window. See figure 37, above.

5.2   Preparation
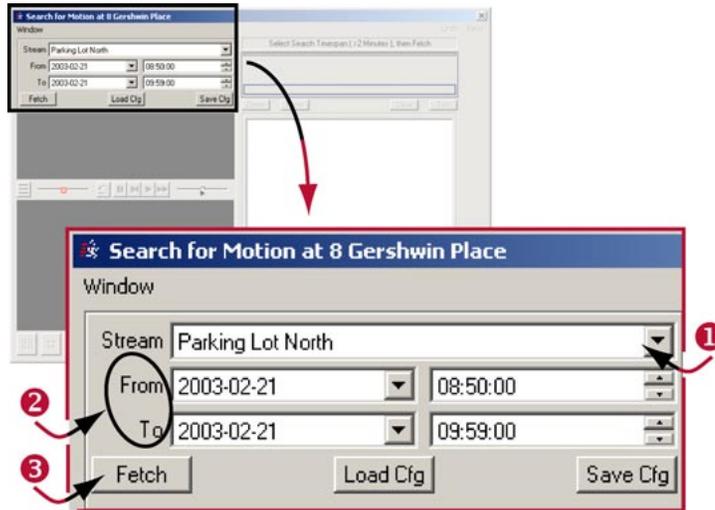
Fig. 38. Steps to prepare a search for motion.

➤**50 To prepare a motion search**

1.   Click Motion Search and click the arrow in the **Stream** box to display a list of the site's cameras. Other streams are not listed in a Motion Search. Select a camera from the **Stream** list. See #1 in figure 38.

2.   Indicate date and/or time by clicking and typing in the **From** and **To** boxes. A calendar utility is available by clicking the **From** and **To** arrows.

3.   Click **Fetch**. Two frames of video are displayed: an *initial frame* from the "From…" time and date, another, *final frame,* from the "To…". The initial frame is enlarged, for setting search options.

4.   Do one of the following:

•   Click **Search**. The "Search" button changes to either: **Redefine** or **Stop**, in case you need change the motion options and search again.

•   Use *Motion Threshold* options or *Masking that Detects Motion*, as explained shortly, in 5.2.2 and 5.2.3.

5.2.1   Early "From"; Future "To"

First available video

From. If the "from time…" for a motion search is a time at which the unit was not recording video, the first image *after* the requested time is displayed. A flashing later media icon appears, indicating that the image in a still frame is *later* than the "from time" requested. See figures 39 and 40. The earliest date that can be selected using the calendar utility is January first, 2000.

Fig. 39. The icon for the later media indicator resembles a clock face.

➢**51   To obtain the time offset of later media**

- Click the later media icon. If the image is dark, check the time in the *Offset Image Time* window to find out if, for example, the video was recorded at night.
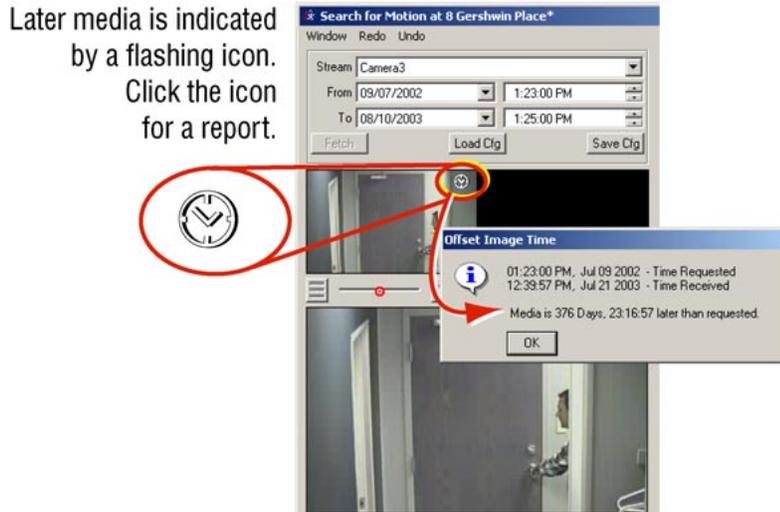
Fig. 40. Requesting video from a time when none is available.

Future date and time

To. Requests for a future date or time cannot be requested.

Power outages and so on, can temporarily stop a unit from recording. When recording resumes, there is a "hole" in the video archive. These holes can cause the later media indicator to appear.

5.2.2 Motion Threshold

Options can be ignored

The simplest way to obtain a report of motion in the video is to click **Search** after clicking **Fetch**; see procedure 50 in 5.2, above. Use of *Motion Threshold* or *Masking that Detects Motion*, explained in this section and 5.2.3, are optional. If this is your first read-through of these options, please skip to p. 5–7 for 5.3: *Search Report*, and come back to find out about the search options later. See figure 41.

Sensitivity. Threshold for reporting movement. Moving the slider right of center picks up smaller movements. Setting the slider to the far left turns off motion search. Slider range of magnitudes: 1 to 100.

Interval. Minimum amount of time, in seconds, between reports. Two or more occurrences of movement within the interval are reported as a single item in the motion search report. Adjust the interval as needed. Range: 1'' to 9999'' (or 2h:46':39'').
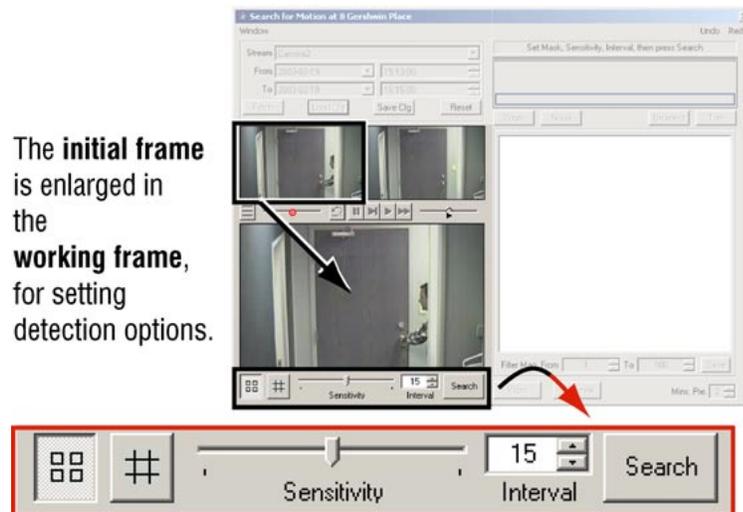
Fig. 41. Detection options toolbar: **Sensitivity** and **Interval**.

5.2.3 Masking that Detects Motion

You can focus *View* to search for motion only on areas of the video that you mask.

Mask buttons

 Show / **Hide masking grid.** Toggle for the presence/absence of a grid overlay on the video image, to help select the area(s) used to search for motion.

 Show / **Hide mask and Enable/ Disable mask edit.** Toggle, to search for motion using either a partial area (mask) or the full area of a video image. When enabled, only the areas that you have masked are searched for motion. See figure 42. Procedure ➢52, below, explains how to focus motion search on part of a video feed. The mask(s) can also be shown during the playback of video, in a Motion Search session. To save a mask, see 5.7.1, *Repeating a Motion Search*, on p.5–16.

➤**52 To focus motion search on an area of a video feed's picture**

1. After preparing a motion search, as explained in 5.2, *Preparation*, click [icon],
    the **Show** / **Hide mask** button. You have the option of clicking [icon],
    the **Show** / **Hide masking grid** button.

2. On the larger image, click where you need the motion search to occur. Blocks
    appear as you click on the image. You can click as many times as needed. See
    figure 42.

➤**53 To remove a block in a mask**

• Click the block.

➤**54 To view more masking commands**

• Place the mouse pointer on the large video image of a motion session and
   right-click. A menu appears, showing global masking commands. See
   figure 42.
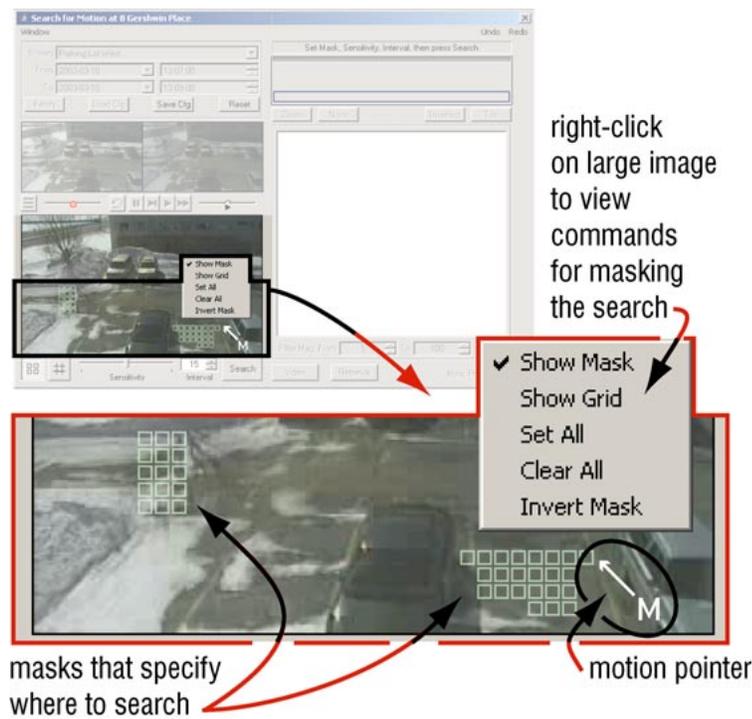
Fig. 42. Enlarged detail of image used during a motion search.

Global masking commands

Show mask. Displays/hides where the search for motion occurs. When masks are hidden, the entire area of the video is searched.

Show grid. Toggle to display a grid overlay, to help select the area(s) used to search for motion. Works like the **Show** / **Hide masking grid** button.

Set all. Covers the entire area of a video image with a mask. The mouse can then be used to remove part of the mask, as needed. When used with the Invert Mask command, small areas can be excluded from a search. See procedure ➢56, below.

Clear all. Removes all masks from the image area. The mouse can then be used to add new masks.

Invert mask. Unmasks masked areas, and masks unmasked areas.

➢55 To mask a larger area with one click

- Press and hold the **Ctrl** key on the PC's keyboard, then click the larger image. A larger mask (3x3 blocks) is inserted

➢56 To exclude an area from a search

1. After preparing a motion search (see 5.2, *Preparation*), click

   , the **Show** / **Hide mask** button. You have the option of clicking , the **Show** / **Hide masking grid** button.

2. Click on areas of the image where you need to exclude a search for motion. As you click, blocks appear. See figure 42.

3. Show the masking commands, by placing the mouse pointer on the large video image and right-clicking.

4. Click **Invert Mask**.

5. You have the option of saving the mask, along with other search options, see the procedures in section 5.7.1: *Repeating a Motion Search*.

5.3　　　Search Report

> ➤**57　To obtain a report**

- After preparing a motion search (see 5.2, *Preparation*), and using the optional motion options, click **Search**. A motion search report is produced. See figure 43.

Motion is reported each time it is detected between the **From** and **To** date and time.
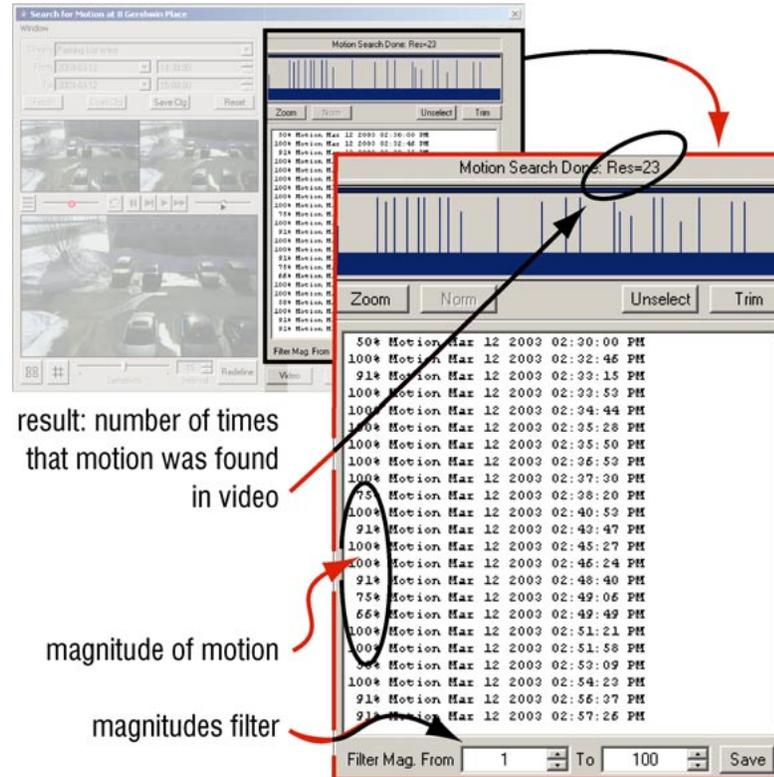
Fig. 43. Motion search report.

5.3.1　　　Report Options

Magnitudes filter (Filter Mag.)

In figure 43, you can see that the leftmost column of a report shows the magnitude, or how strongly a video image has changed. Low magnitudes of 10% to 20% indicate that gradual changes in lighting or slow movement are being detected. Higher magnitudes (70% or more) usually mean quick motion or sudden, dramatic changes in lighting.

➤**58　To customize the range of magnitudes reported**

1. After obtaining a motion search report, click in the magnitude filter's **Filter Mag. From** or **To** boxes, as needed.

2. Adjust the value by either:

- typing a value

- clicking on the arrows at the right-hand side of the box.

Example

To obtain a report of only the highest magnitudes, say from 90% to 100%:

- click in the **From** box and then type "90", without quotation marks. The report is updated on-the-fly.
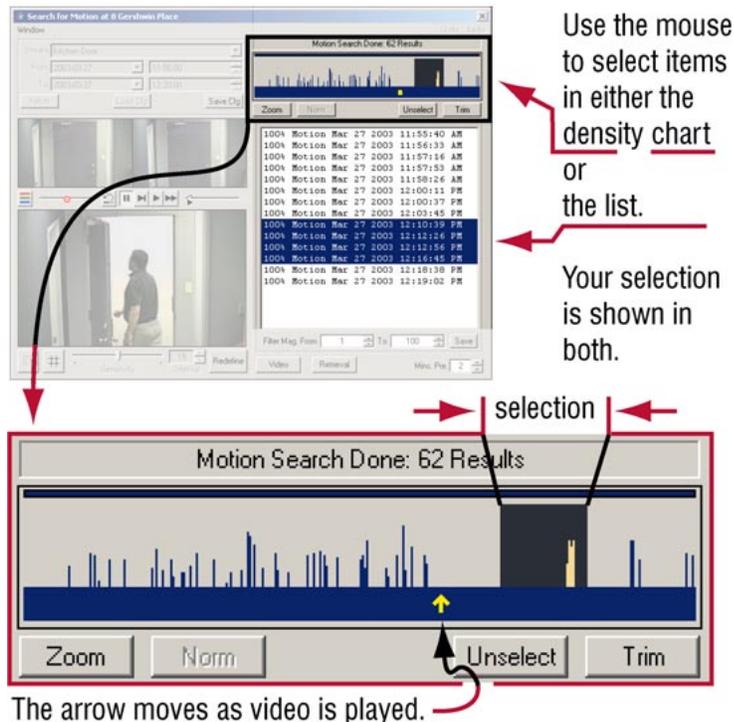
Fig. 44. Detail of selection in frequency chart of a report.

Selecting items in the report

You can select one or more items in the report using either:
- the list of every detected motion.
- the density chart, at the top of the report. See figure 44.

Zoom

The frequency chart of a selection of items can be zoomed for an enhanced view of the chart between reports of motion detection. See figure 45. You can double-click a vertical bar to see the video excerpt associated with it.

Trim

The **Trim** button works when you have zoomed the frequency chart, showing only your selection of items in the list. Together with the magnitudes filter, **Trim** can help reduce the amount of items in a motion search report, for using the report with other software.

Norm

The **Norm** (normal) button cancels the zoomed view of the frequency chart. The frequency chart for the whole report is displayed.

Unselect

To show the report without any highlighting, click **Unselect**.
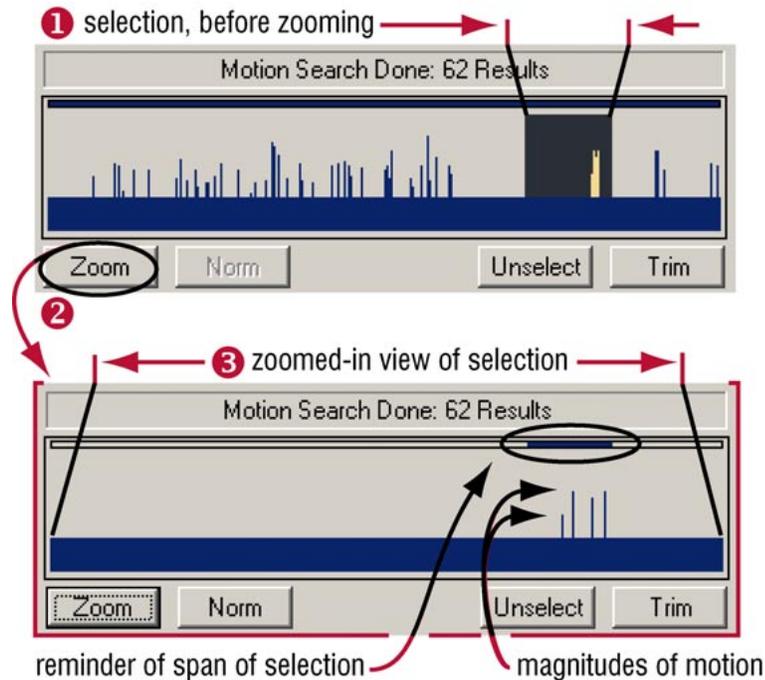
Fig. 45. Effect of Zoom button on selection of list items. Zooming makes a cluster of items appear more spread-out, and facilitates a finer selection.

Items that are out-of-order in the list

Setting the clock on the Multi-Media unit back in time can produce such results. The items are still in order, even if the time index contradicts the list.

5.4   Video from Motion Search

➢**59 To view video of results in the Motion Search session**

In the motion search report, do one of the following:

- **double-click a list item.** The video excerpt plays in the *Working Frame* of the Search for Motion window. See figure 46.

- click **Video**. Video from the first item in the motion report plays in the *Working Frame* of the Search for Motion window.

- select one or many items, then click **Video**. Video plays, starting at the time of the first of the selected items.

Video is shown using the camera that detected the motion.

Video keeps playing until you stop it or until the Motion Search session is closed.
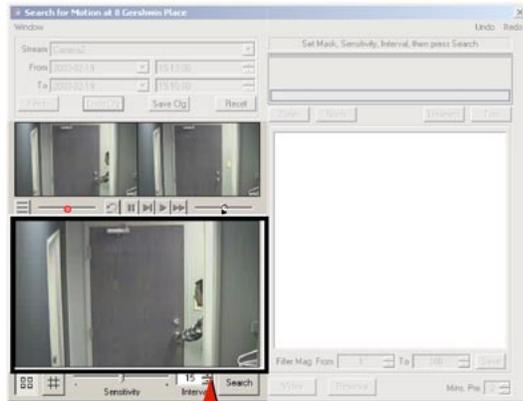
working frame

Fig. 46. Detection options toolbar: **Sensitivity** and **Interval**.

You can control the playback using the playback toolbar, much as you would in a Retrieval session. See figure 47, in the next section.

5.4.1   Video Controls for Motion

Replay video: seeing a video excerpt again

The Replay button restarts an excerpt of video.

Step / next frame

Click repeatedly, as needed, to view video frame-by-frame. Useful if the pause button is clicked just a moment too soon. While video is playing, clicking **Step** / **Next Frame** pauses the video. Click again to see the next frame of video.
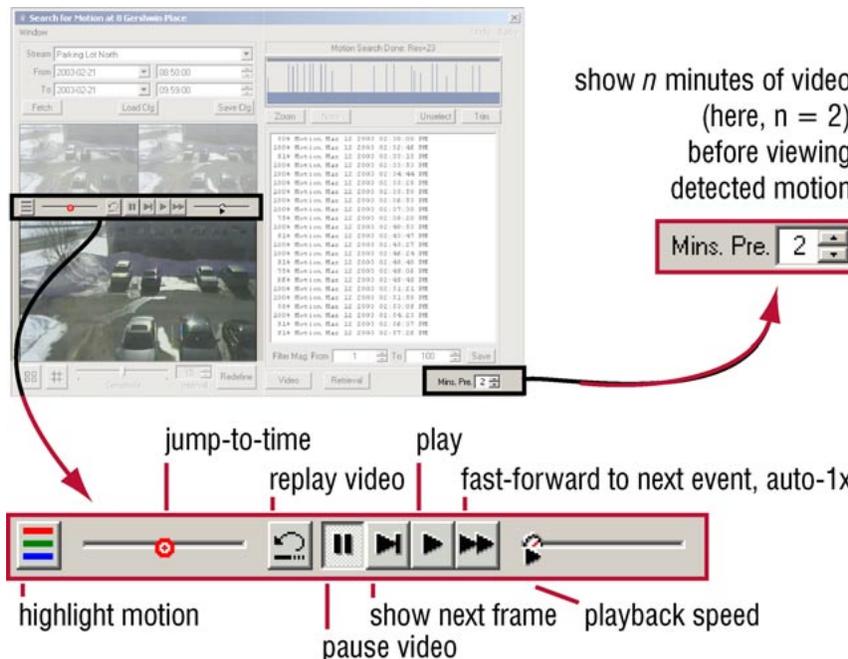
show *n* minutes of video
(here, n = 2)
before viewing
detected motion

Mins. Pre. 2

jump-to-time   play

replay video   fast-forward to next event, auto-1x

highlight motion   show next frame   playback speed

pause video

Fig. 47. Buttons on the video toolbar of a Motion Search session.

Fast-forward to next event

▶▶ The fast-forward button speeds up video, then *slows down video to 1x speed* (auto-1x), four seconds before the video shows the detected motion. The slowing of video is a cue that motion is about to be displayed. After you have witnessed the motion, you have the option of leaving the video at 1x speed or of clicking the fast-forward button again, speeding up video leading to the next instance of motion. This behavior can be defeated; see procedure ➢61.

➢60 To optimize watching video from motion report

1. After obtaining a motion search report, double-click a list item or a bar in the frequency chart. The video excerpt plays in the working frame.

2. Click ▶▶ on the Motion Search toolbar. Video speeds up through the minutes of pre-detection video, then slows to normal speed (1x) a few seconds before motion is detected, and remains at normal speed. You have the option of clicking the pause button as needed.

3. To view the next instance of motion, click ▶▶ as needed.

➢61 To use fast-forward without any slowing

- Set the slider for playback speed to its rightmost setting ("Fast"). See figure 48.

Fast-forward that slows down just before motion appears (auto-1x).

Fast

For continuous fast-forward, set the slider for Playback speed to its rightmost position (Fast).

Fig. 48. Fast-forward options

Viewing video of events just prior to detection of motion

You can adjust the amount of video seen before motion was detected, using the **Mins. Pre.** (minutes of viewing, prior to detection) box. See figures 49 and 47.

Mins. Pre. 2
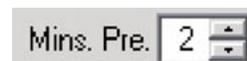
Fig. 49. Setting the minutes of pre-detection viewing

By default, the preview is set to two minutes. You may not need to adjust the amount of

time spent on pre-detection viewing, due to the enhanced ▶▶ fast-forward button.

➢62 To change the amount of pre-detection viewing

1. After obtaining a motion search report, click in the **Mins. Pre.** box.

2. Adjust the value by: typing a value, or by clicking the arrows at the right-hand side of the box.

5.5   Opting for a Retrieval Session

Video from many cameras

To view video from many cameras, at the time that the motion was detected, a *Retrieval session* can be started from a Motion Search session.

➤**63 To view video in a Retrieval session**

　　1.　　Select one or many items in the Motion Search report.

　　2.　　Click **Retrieval**. A Retrieval session starts, starting at the time indicating that motion was detected, using all cameras. A box is added, showing that a Motion event is being shown. When many items are selected, they are listed in that *Retrieval* session's **item** box. See figure 50.

Fig. 50. An item box appears along with a Retrieval session when an operator starts **Retrieval** from a Motion Search session.

Returning to the motion search report

The Motion Search report is still available, if you need video reported at other times.

➤**64 To return to a Motion Search from a Retrieval session**

　　1.　　Either:

- Minimize the Retrieval session to make the motion Search session visible.
- Drag the Retrieval session aside. If the tear-away player is maximized, "restore down" the Retrieval session before dragging it aside.
- Close the Retrieval session.

　　2.　　In the **Search for Motion…** window, either:

- double-click a list item. The video excerpt plays in the *working frame* of the Search for Motion window. See figure 46.
- select one or many items, then click **Retrieval**. A Retrieval session starts, using all cameras and starting at the time of the first of the selected items.

5.6 False Positive Reports

Motion search can be triggered by changes in lighting or movement outside of an area of interest.

5.6.1 Flashing Lights

A Source of false positives

A computer monitor can also be a source of false positives. To unmask it or a flashing light from a search for motion, see figure 51.

➢**65 To mask out a flashing monitor**

1. After preparing a motion search (see 5.2, *Preparation*), click ⊞, the **Show / Hide mask** button.

2. Click on areas of the image where there are computer monitors, television sets or other sources of flashing light that need to be excluded from a search for motion. As you click, blocks appear. See figure 51, image 2.

3. Show the masking commands, by placing the mouse pointer on the large video image and right-clicking.

4. Click **Invert Mask**. See figure 51, image 3.
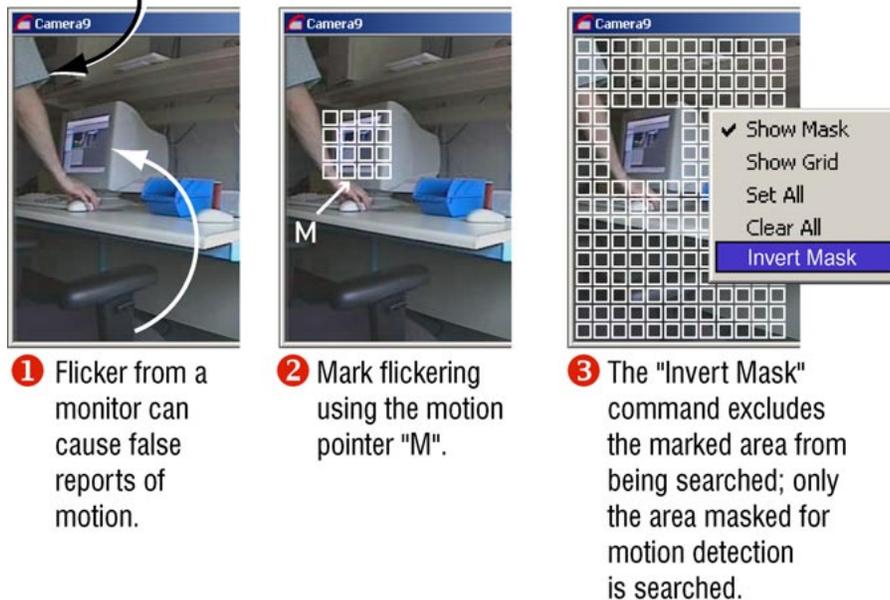
Fig. 51. Masking sources of false positive reports. Here, the flashing of a PC monitor is masked, followed by the **Invert Mask** command.

Procedure ➢56, on p. 5–6 also explains how to exclude an area.

5.6.2 **Smaller Detection Masks**

The easiest solution for false reports of motion is to use smaller masks to *search* for motion. For example: to search for the opening of a door, when many people walk by that door, set the motion search mask on the top corner of the door. See figure 52.
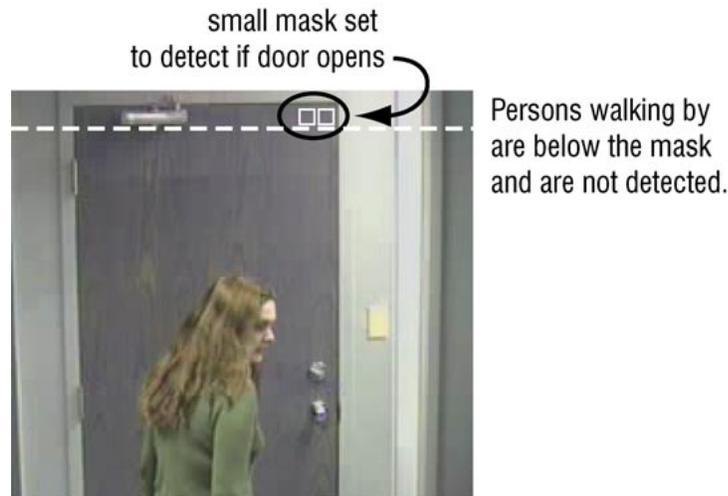
Fig. 52. A small detection mask. Dotted line shows lower bound of the mask.

> **Motion masks behave differently when used to trigger alarms. Read about motion** *detection* **in the** *Admin User Guide*.

Fig. 53. Masking the entrance/exit to a parking lot. You can search for arrival and departure times by using masks at entry points to an area, and/or at the boundaries of an image. Use of a mask excludes unmasked areas from being searched for movement.

5.6.3   Using Highlighting

 Motion Highlighting. Enables/disables the highlighting of motion. If you are getting more reports of movement than you expect (false positives), click the **Motion Highlighting** button, while running a video feed. This lets you "see motion" as it is detected by a Multi-Media unit: when enabled, moving objects produce colored pixels. The color indicates if Multi will report the movement or not. For the location of the button, see figure 47.

- **red** or **green.** Indicate motion at or above the detection threshold.

- **blue.** Indicates motion that is below the threshold of **Sensitivity** or detected before the time set in **Interval** has elapsed. This movement is not reported. If you need it to be reported, adjust the time of **Interval** and/or the **Sensitivity**. See procedures ➢66 and ➢67.

➢66 To turn motion highlighting on or off

1.   After preparing a motion search (see 5.2, *Preparation*) and obtaining search results (5.3, *Search Report*), view video of a result.

2.   Click , the **Motion Highlight** button.

Changing how a Multi-Media unit sees motion

Sensitivity. Moving the slider right of center shows movements more as red or green; less as blue. Setting the slider further left makes movements shown more as blue, then not at all.

➢67 To adjust for false positives or false negatives

1.   Using the information reported by motion highlighting, make a mental note if too much or too little movement is being detected.

2.   Click **Redefine**. The button is renamed to "Search".

3.   Adjust the **Sensitivity** slider. Set it towards the right if too little movement was being detected; set it to the left if too much movement is detected.

4.   Lengthen or shorten the time of **Interval**.

5.   Click **Search**. You have the option of clicking **Stop** and redefining further.

5.6.4   More Solutions

Camera position. For false positives that occur at the edge of camera windows, consider repositioning a camera. Placing a camera on the ceiling gives an odd view but may mask flickering naturally. Movement from cars on a roadway, outside the area of interest, can also be remedied by repositioning a camera.

Report customization. Customize the range of magnitudes reported, as explained in 5.3.1, *Report Options*.

5.7 Saving & Reusing Search Data

You can save the:

- date and time for a motion search and its motion detection options for reuse.

  - and/or -

- lists of movement found in the video or edited lists, for further use with word processing software or spreadsheets.

5.7.1 Repeating a Motion Search

➤68 **To save the date, time, mask, motion options**

1. You have the option of saving all preparation settings by clicking **Save Cfg** ("save the configuration settings"). A dialog appears for saving the information as a computer file.

2. Type a filename and select a folder, as needed.

3. Click **OK**. The information is saved in a file that has a **.rmc** extension.

➤69 **To reuse a date and time for a motion search**

1. In a Motion Search session, click the arrow in the **Stream** box to display a list of the site's cameras. You can see the arrow in figure 38 on p. 5–2.

2. Select a camera from the **Stream** list.

3. Click **Load Cfg** ("load the configuration settings"). A dialog appears for selecting a computer file.

4. Select a file with a **.rmc** extension, and folder as needed.

5. Click **OK**.

6. Click **Fetch**, and then click **Search**.

> **Reusing settings on the same video generates the same motion detection report. For a different report, change the motion options, the date and time or both.**

5.7.2 Using a Report

A motion search report can be saved as a text file, then opened using a word processor, for further enhancement.

➤70 **To Save a motion Report as a text file**

1. After obtaining a motion search report, click **Save**. A dialog appears for saving the information as a computer file.

2. Type a filename and select a folder, as needed.

3. Click **OK**.

> **You have the option of filtering the magnitudes and/or trimming the report before saving it as a text file. Only the items in the list are saved.**

6   Alarms and Events

6.1   About Alarms

Flexibility

A Multi system administrator (Multi SA) can set a Multi-Media unit to:

- log events and/or have them trigger an alarm. No special hardware is needed for such alarms: they ring on an operator's PC. By default, some events are always logged, for administrative purposes.

- send alarms to a designated PC. Such a PC is then known as a Multi-Media *alarm station*. See 6.10: *Alarm Station*, starting on p. 6–20.
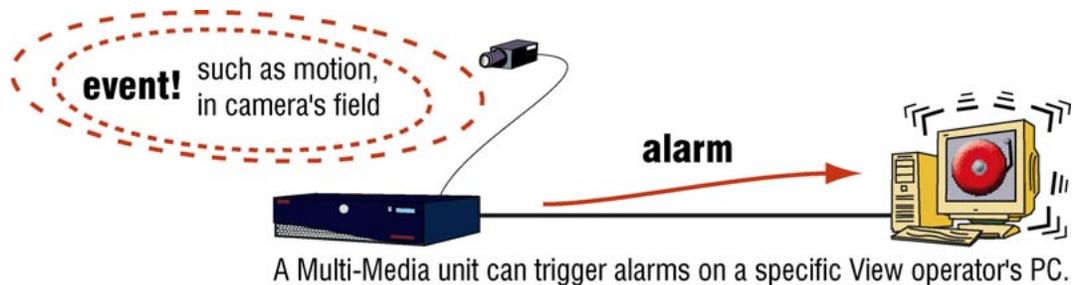
Fig. 54. A Multi SA can set a unit to send alarms to a specific PC.

Alarm notification

When an alarm reaches a View operator's PC, the alarm bell icon in *View* appears to vibrate and the PC produces a beeping sound (figure 55).
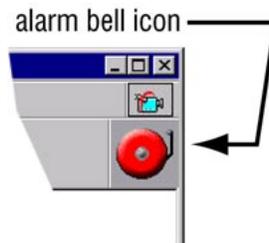
Fig. 55. The alarm bell icon in View software

To stop the ringing of an alarm, click the alarm bell icon, shown in figure 55
Alarms are not acknowledged; only the ringing stops. Ringing resumes if session is reopened.

Viewing video from the time of the alarm

A View operator has the option of customizing if and how video from the time and site of the alarm is received. Video can be seen:

- **immediately.** Live video from the site where the alarm was sent is seen full-screen. See 6.2: *Live-alarmed Session*. Alarms are then acknowledged and rearmed as needed.

- **on request.** See 6.3: *Alarm Session.* Video from multiple alarms can be managed, with video retrieved as needed.

Event processing
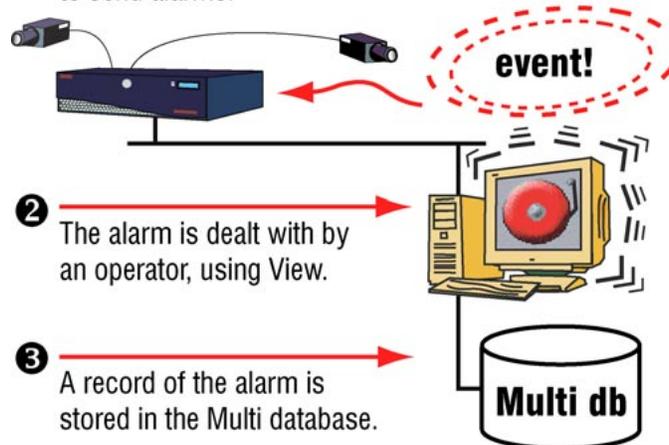
Fig. 56. Once set to "alarm", an event can trigger an alarm in View. The alarm's information is stored in the Multi central database after the alarm is acknowledged.

6.1.1   Customizing Alarms

Flexibility

Options for customizing alarms can be changed as needed.

➤**71 To customize alarm options in View**

1.   Display the *Alarm Handling Options*, by using the main View menu to click **Options** and then **Alarm Handling…**

2.   Select options as needed. Click **OK**. See figure 57.
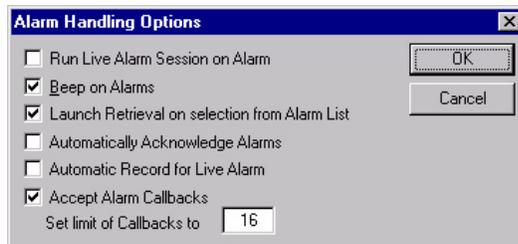
Fig. 57. Multi options for video delivery options during an alarm

Options

Run live alarm session on alarm. Running a live session while an alarm is pending causes live video of all cameras at a site to be displayed full screen. Receiving an alarm during an alarm *session* does not open a Live-alarmed session. See 6.2: *Live-alarmed Session*.

Beep on alarms. Makes the operator's PC produce and repeat a short, pitched, electronic tone when a Multi-Media unit reports an alarm. An operator can use this feature even if the PC does not have speakers or a sound card. The large alarm bell icon still vibrates when **Beep…** is disabled.

Launch retrieval on selection from alarm list. During alive-alarmed session, it may be more interesting for the operator to retrieve video from the *time of the event*, than to view live video from the site. The option enables you to start a retrieval session from the time of the alarm, by selecting an alarm from the alarm list in the live alarmed session. See figure 58. The option can be disabled by removing the checkmark.

Automatically acknowledge (ACK) alarms. During a live-alarmed session, makes the small alarm bell button acknowledge **all** alarms *from that site*. See figure 58. The small alarm bell button is not the large alarm bell icon, illustrated in figure 55; clicking the large icon only stops the beeping.
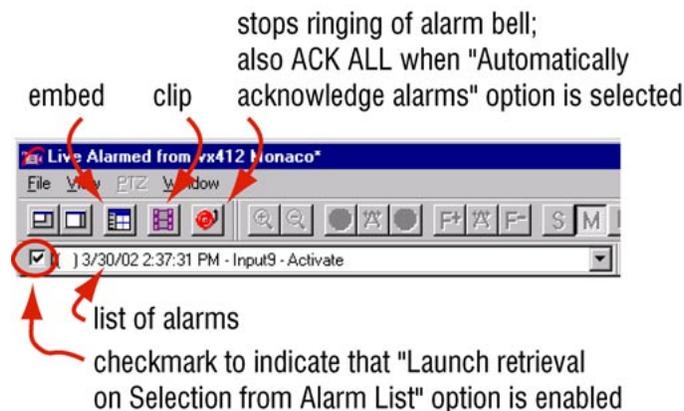
Fig. 58. Live Alarmed toolbar detail. For context, see figure 59.

Automatic record for live alarm. Recording a clip starts immediately when an alarm is received at the operator's PC. **Preparation.**

Accept Alarm Callbacks. Setting for PCs designated as Multi-Media alarm stations.

Set Limit of callbacks to *n*. The "*n*" is a number from 1 to 16; the maximum number of units from which callbacks are accepted before more are turned away to callback other alarm stations.

Something to watch out for…
Alarms can be scheduled *not* to trigger at certain times or days. See 12.2: *Alarm Schedule*, on p. 12–5.

6.1.2   Alarm Rights for Operators

➢72   To receive and process alarms

A View operator needs the Multi SA to:

1.   Add the **Process alarms** right to a View-operator account.

    - and to -

2.   Grant **access to sites** set to send alarms.

Time limit for operating sites: suspended while processing alarms

Operator accounts restricted by a time limit for operating Multi-Media units do not show a countdown when processing alarms: the time limit is cancelled while processing alarms. Alarms usually mean some type of emergency is occurring, which may require more time to be dealt with.

Setting an alarm

Setting an alarm requires additional user-account rights. See 6.7: *Setting an Alarm*.

6.2   Live-alarmed Session

When an alarm is triggered...

If an operator is connected to the Multi site sending the alarm, a "Live Alarmed" session takes up the entire PC screen (The Live Alarmed window is maximized) and all cameras at the site are displayed.

For systems with many Multi-Media units

During a full screen LIVE alarm session, the name of the site is in the window's title bar. When alarms are received from two or more sites, Multi is designed so that they be dealt with site-by-site, to avoid confusion.

➢73   To retrieve video recorded at the time of an alarm

1.   Select the "**Launch a retrieval on selection from alarm list**" option as explained in 6.1.1: *Customizing Alarms*. This makes a checkmark appear next to the list of alarms, under the live-alarmed toolbar. See fig. 58.

2.   Click the arrow to view the list of alarms. Note: there can be one or more alarms.

3.   Start a retrieval session by selecting an alarm from the list. The retrieval session starts in a new tear-away player.
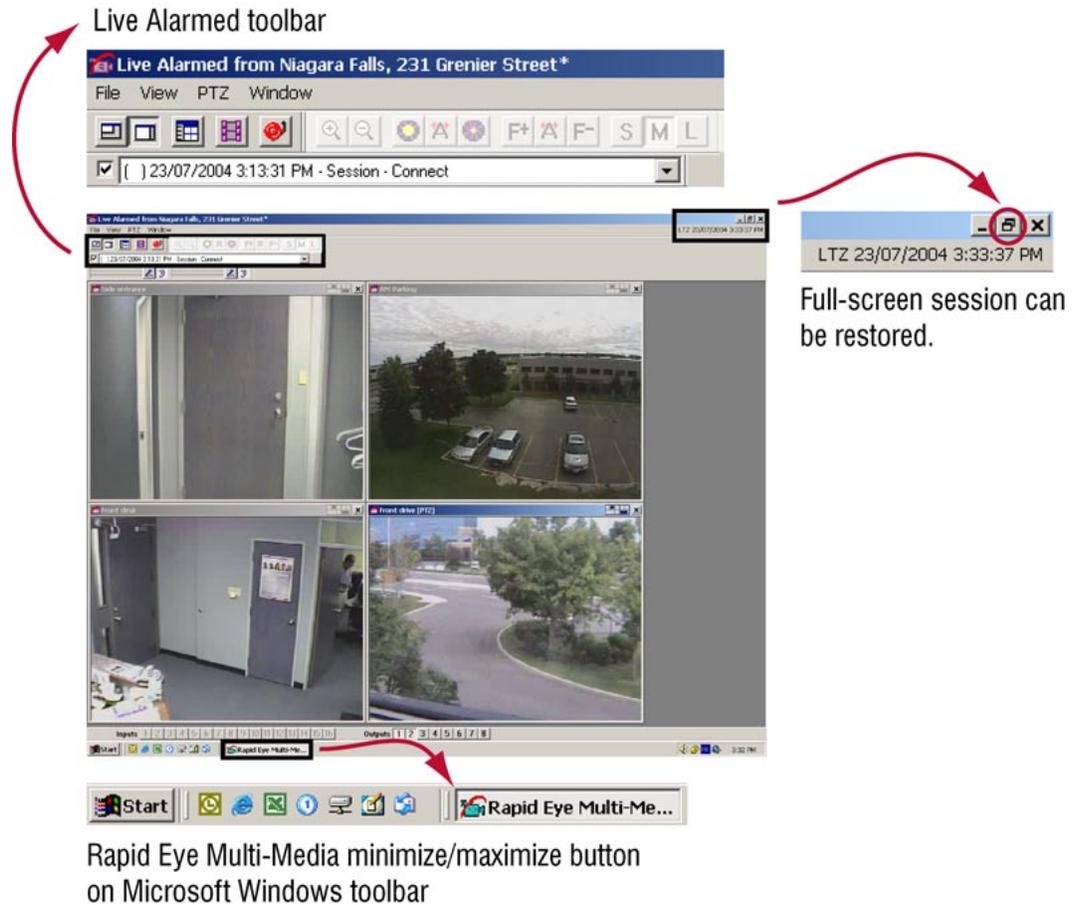
Fig. 59. Location of toolbar in a full-screen Live Alarmed session. This Multi-Media site is using only four of a possible sixteen cameras.

6.2.1   Clip of Alarm Video

A clip of all live cameras can be made manually or automatically.

Preparation

- **Automatic.** Select **Automatic record for live alarm** box, as explained in 6.1.1: *Customizing Alarms*. During a Live-alarmed session, the clip starts recording without prompting, in the background.

- **Manual.** Remove the checkmark in the **Automatic record for live alarm** box, as explained in 6.1.1: *Customizing Alarms*. During a Live Alarmed session, click on the Playback toolbar. The color of the button changes to red, indicating that video feeds are being recorded.

>**74 To stop making a clip during an alarmed-live session**

1. To *stop* recording, do one of the following:

*   click ▦, the recording-a-clip button

*   close the live alarmed session.

2. Either:

*   **save the clip.** Type a name for the clip in the Save dialog that appears and click **OK**.

*   **discard the clip.** Click **Cancel**.

6.3   Alarm Session

Depending on your selection of alarm handling options, a live alarm session may be disabled. You can use an alarm session to see the list of alarms and/or acknowledged alarms at a site.

6.3.1   The Alarm Session Window

You can run an alarm session even if no alarms are set or ringing.

>**75 To run an alarm session**

1. Using View, select a site on the Sites list.

2. Do one of the following:

*   Select the site; then click ⬤ Alarms on the toolbar.

*   Right-click on the site name; click **Alarm** on the shortcut menu.

    - or -

*   Select the site; then click **Alarms** on the *Actions* menu.

3. If many connections to the unit are available, a *Connections* dialog appears. Choose the network or dial-up connection that your Multi SA recommends you use and click **OK**. An alarm window is displayed in the session pane. See figure 60.

⚠️ **A *Connections* dialog does not appear if there is only one connection.**

6.3.2 Acknowledging an Alarm

Why acknowledge (ACK) before REARM?

When operators ACK alarms, the alarms remain listed, for operator reference. Alarms cannot be triggered again if not rearmed. This can be simpler than turning alarms off, for example: during construction work or other temporary onsite situations. See your security officer about alarm handling and alarm suspension.

➢**76 To acknowledge an alarm in an alarm session**

1. Start an alarm session, or switch to one. If you are not sure how to do so, see 6.3: *Alarm Session*, above.

2. Select an alarm. A red, octagonal, status icon (🛑) identifies unacknowledged alarms. See figure 60.

3. To acknowledge the alarm, click **ACK** (acknowledge). Its icon changes from red to blue, and takes its chronological place in the acknowledged part of the list. If other alarms remain unacknowledged, an alarm may keep ringing.

> **Clicking ACK ALL acknowledges all of the alarms at once.**
> The alarms are sorted chronologically.
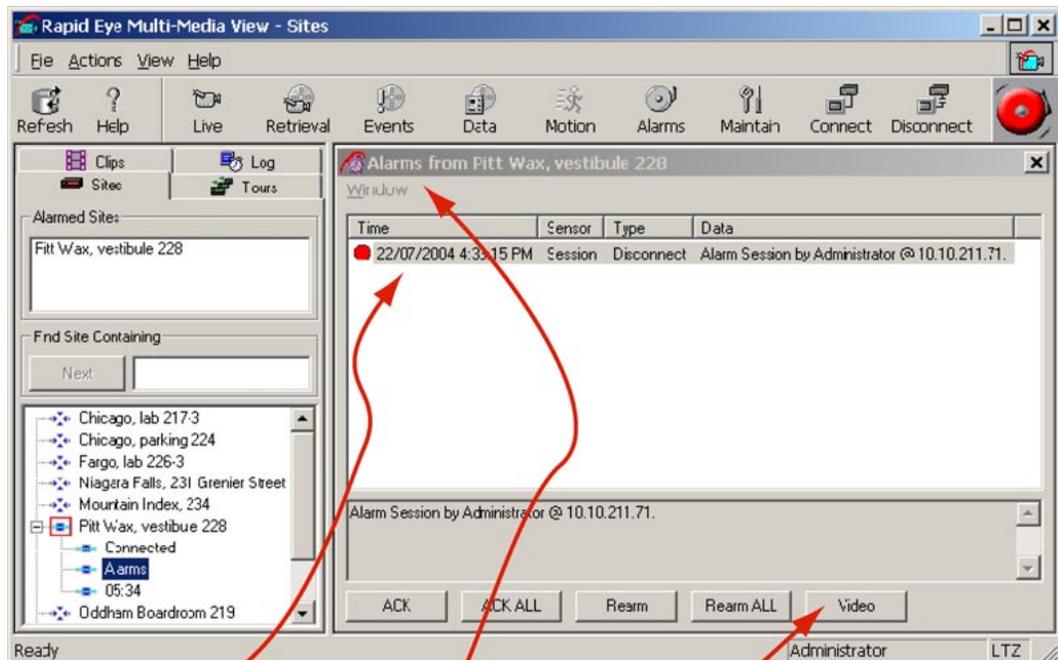
List of alarms
Alarm session, in tear-away window
To view video from the time of the alarm

Fig. 60. Alarm session components. A red square around a site's connection icon indicates that a site is sending alarms.

➢**77 To acknowledge all alarms in a live-alarmed session**

1. Set your copy of *View* to "**Automatically acknowledge alarms**", as explained in 6.1.1: *Customizing Alarms*.

2. In a live-alarmed window click the small on the toolbar. An "(A)" appears next to alarms in the alarm list.

If Automatically Acknowledge Alarms is not enabled

the button only stops the alarm bell.

If disconnected...

If you end the alarm session *before* acknowledging the alarm, or are disconnected from the site, the alarm is kept active, and is again reported when you run the next alarm session.

6.4   Rearming Alarms

Alarms on a Multi-Media unit can be rearmed with or without acknowledgment. Once rearmed, if the event occurs again, a fresh alarm can sound at the Multi operator's station.

➢**78 To rearm an alarm in a live-alarmed session**

1. Select an alarm; the alarm can be active or acknowledged.

2. Right-click the alarm list. A menu is displayed.

3. Click **Rearm**.

➢**79 To rearm an alarm in an alarm session**

1. Start or switch to an alarm session.

2. Select an alarm. A red, octagonal, status icon ( ) identifies unacknowledged alarms; a blue icon, acknowledged alarms.

3. Click **REARM ALL**.

Clicking REARM ALL resets all alarms, acknowledged or not.

6.5   Video from Site of Event: Options

Run a Retrieval session

Video from the time of the event that triggered the alarm, can be displayed. See procedure ➢80.

Go live

You can elect to obtain *live* video from the site, instead of *recorded* video. This can be especially effective when an event is still in progress. See procedure ➢81.

Make a clip

A clip of recorded video from the time of an alarm can be produced as explained in 7.1: *Making and Saving a Clip*, on p. 7–1.

➢**80 To view recorded video from the time of an alarm**

1. While running an alarm session, select an alarm from the session's tear-away player, as explained in 6.3: *Alarm Session*.

2. To start a Retrieval session from the time of the alarm, click **Video**. When a site has many cameras, you are asked to select one or more. See figure 60 and 61.

3. To watch video obtained before or after the time of the alarm, use the jump-to-time slider as needed. For other controls, see 3.2: *Controlling Playback*, on p. 3–3.

4. To display the Alarm session, click "Alarms", below the name of the site on the Site action tab.

Fig. 61. Retrieval session started from an Alarm session. An alarm is selected, then **Video** is clicked. The Retrieval session has been dragged down, revealing the Alarm session in the background. For the location of **Video** button in an Alarm session, see figure 60.

➢**81 To view live video after receiving an alarm**

• Start a live session at the site of the alarm; how to do so is shown in section 2.1.1: *Starting a Live Session*, on p. 2–1.

   - or -

• Enable **Run Live Alarm...** as explained in section Live-alarmed Session on p. 6–4.

Surveillance common sense

View operators may find that security video from outside world and customer-device events is usually more informative than from other events. For example, viewing video from the time of an alarm, caused by an intrusion detection sensor at your site, makes good sense. Video from the time of a session start might/might not make as much sense since the event did not happen at a Multi site. For a list of **outside world**, **customer-device** and other events, see table 16 on p. 6–17.

6.5.1   Dealing with Multiple Alarms

➢**82 To switch to video from one alarm to another**

1. While running an alarm session, select more than one alarm from the session's tear-away player. To select specific alarms, use MS-Windows mouse and keyboard techniques.

2. Click **Video**. When a site has many cameras, you are asked to select one or more. A Retrieval session starts, displaying the date and time of the earliest alarm that you selected at step 1.

3. To display a list of the other alarms selected at step 1, click the arrow at the right of the item box; an item box can be seen in figure 61.

4. Select an alarm in the list that appears.

5. To display the Alarm session, click "Alarms", below the name of the site on the Site action tab.

6.6   Controlling an Onsite Device: Output

Flexibility

Like other Multi features, use of outputs to control onsite devices is optional. Ask your Multi SA if such devices are connected to the Rapid Eye Multi-Media unit(s) in your system.

Taking action, before, during or after an alarm

You can use *outputs* to remotely control onsite devices such as lights, sirens, or gates.

Before you can use outputs …

To use the outputs, View operators need specific rights in their user account. Your Multi SA has to:

- add the **Use outputs** and **Live video** rights to the user account. This enables a View operator to run a live session and click the output buttons.

- grant **access to the site**(s) assigned to the operator by supervisor.

➢**83 To use an output**

- The outputs are displayed during a Live session. Click the output that matches the device. Your Multi SA can inform you as to which output matches which device.

Terminology note

Outputs can also be referred to as *general-purpose outputs* (GPOs), in some technical documentation.

6.6.1 Peephole Application

One application for outputs is to remotely unlock a door after visual inspection of a doorway.

Preparations

Installation personnel wire two devices to a Multi-Media unit:

- the locking mechanism of a security door (or gate)

- a doorbell.

The Multi SA sets the Multi-Media unit's input connected to the doorbell, to trigger an alarm and sets up the sites Multi-Media unit to call an alarm station. The **Run live alarm session on alarm** option can be disabled, to taste.

➢84 **To control access at a site (in this doorbell example)**

1. At a Multi site that is setup as described at the beginning of this section (on p. 6–11), run an alarm session when an alarm rings. For the procedure, see 6.3: *Alarm Session*.

2. If the alarm is from the input connected to the doorbell, acknowledge it. For the procedure, see 6.3.

3. Start a Live video session to view the caller. Live video sessions are explained starting in section 2: *Live Video*, on p. 2–1.

4. Use the output that matches the door. For the procedure, see 6.6: *Controlling an Onsite* Device: Output.

5. Rearm the alarm. For those procedures, see the following sections.

6.7 Setting an Alarm

Process

A *maintenance* session is used to set an event to trigger an alarm, as illustrated in figure 62. If your Multi user account cannot run a maintenance session, your *Multi system administrator* (Multi SA) can inform you about which alarms, if any, are set on your Multi system.

Before you can set an alarm …

Before you can start a maintenance session, your Multi SA has to:

- add the **Modify configuration** right to the user account. With this right, you can start a maintenance session at a site and to set events to be ignored, trigger alarms or to be logged; this right also enables a View operator to configure cameras and to perform many other maintenance tasks. See your Multi SA for more information on the other tasks.

- grant **access to the site**(s) assigned to operator(s) by their supervisors.

How can Multi events be processed?

Events are set during site-by-site maintenance sessions, to either:

- **sound an alarm.** View operators are warned when the event occurs. Operators can use information about it, to search for video at the time of the event. See figure 56.

- **be logged.** The event name and its time are logged on the remote video unit. Logged events are *not* listed during an alarm session. See figure 76 on p. 10–1.

- **do both.** An event can sound an alarm and be logged.

- **do nothing.** This is the default setting for some events. Unless set to do otherwise, these events are not logged, nor do they set off alarms. See table 15 on p. 6–16.

6.7.1   Maintenance Session

➤**85 To start a maintenance session**

> **A maintenance session only affects the site that is selected.**

1. Do either one of the following:

- select a site, then click ⌗ Maintain on the toolbar.

- right-click a site and selecting **Maintenance** in the shortcut menu

2. If a *Connections* dialog appears, choose the connection recommended by your Multi SA and click **OK**. The maintenance tabs are displayed.

⚠️ > **Wait for the "System Operational" message in the Feedback box. See figure 62 on p. 6–13.**

➤**86 To end a maintenance session**

Do any one of the following:

- click Disconnect

- click **Disconnect** on the *Actions* menu

- close the *Maintenance* window

- close *View*.

Using Apply and Restore

Apply/**Reset** button. Used after changes are made to Events and Data recording. The **Apply**/**Reset** button *remains active*, when you click another tab to which no changes have been made.

Restore button. Works like an "undo": the settings at the *start of the maintenance session* are re-applied. Quitting the maintenance session ends the possibility of restoring previous settings at that site. For example, suppose that you make changes on a tab, click **Apply**, click another tab and click **Apply** a second time; clicking **Restore** brings the

Multi-Media unit back to the state that it was in, before the two "applies". For an illustration of these buttons in the Maintenance window, see figure 62 on p.6–13.

6.7.2 Events

➢**87 To set an alarm on the events tab**

1. Continue or start a maintenance session. To start a session, see 6.7.1: *Maintenance Session.*

2. Click the Events tab. Select a sub-tab, as needed. The sub-tabs on the Events tab list Session events, System events, and so on—each with its own **Log** check box and **Alarm** check box.

3. Add a checkmark to the **Alarm** check box next to the event that you want to set as an alarm.

4. Repeat steps 3 and 4 for other events, as needed.

5. Click **Apply**. From now on, should these events occur, an alarm is triggered in View.

6. You have the option of ending the maintenance session.

Alarm doubling

When a Multi-Media unit has been setup to call back an alarm station, and you happen to be running an alarm session at the alarm station, an event at the site triggers a call and an alarm.
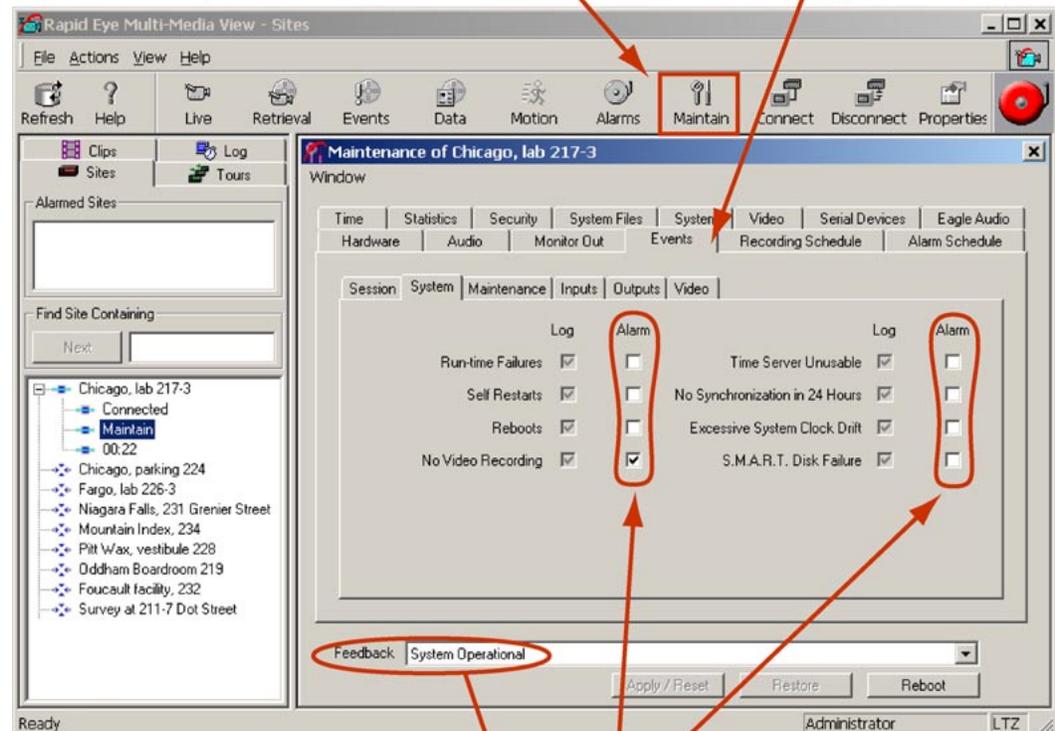
Fig. 62. Using maintenance to set events to report an alarm.

6.7.3 Customer Device

Selecting a customer device

Your Multi SA configures your Multi system to deal with customer devices. For example, a retail store wants to obtain video of employees at a point of sale (POS), when goods are purchased. Figure 63 shows what the Data Recording tab might look like.

➤**88 To set an alarm for a customer device**

1. Continue or start a maintenance session. See 6.7.1: *Maintenance Session*.

2. Click the Data Recording tab. Customer devices are listed in the **Devices** box. See the example in figure 63.

3. Select a device. Its events are listed in the **Events** box. Events are set by your Multi SA. There could be no events for a device. The example in figure 63 shows events.

4. Select one event.

5. Add a checkmark to the **Alarm** box, the **Log** box, both or none.

6. Click **Update**.

7. For other customer device events, repeat steps 3 to 6, as needed.

8. Click **Apply**/**Reset**. From now on, should these events occur, an alarm is triggered in View.
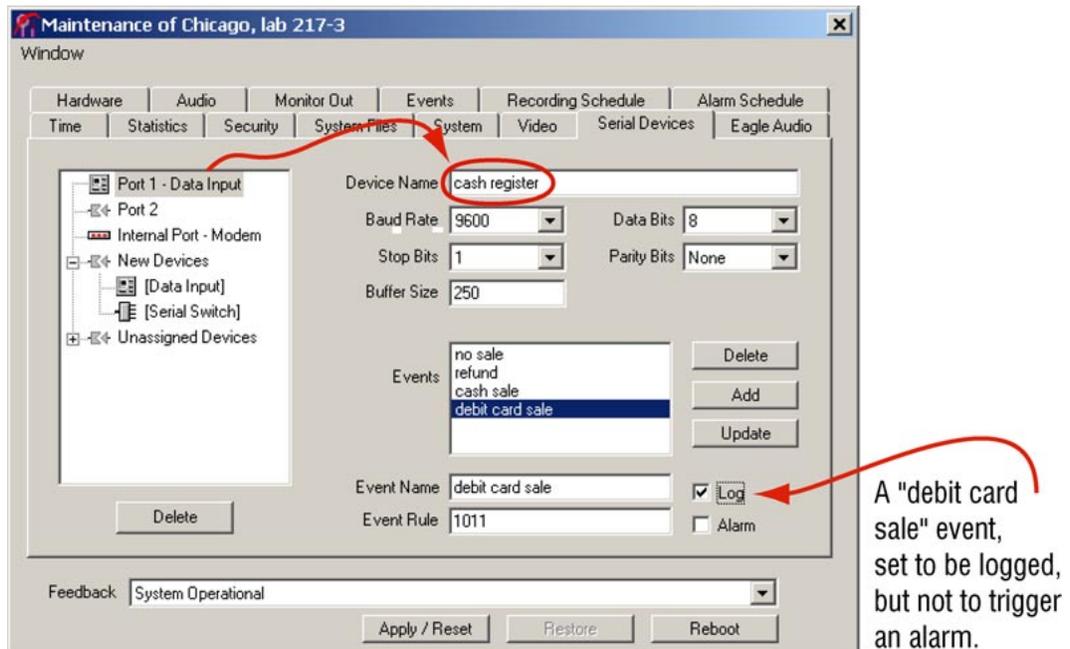
Fig. 63 . Events for a customer device are listed in a maintenance session. You can use these events to trigger an alarm, be logged, or both. Here, events from a cash register "device" are listed.

6.8   Multi-Media Event Reference

Flexibility

Your Multi SA, security personnel or View operators decide which events should trigger alarms.

Sources of events

- **outside world.** Events triggered by sensors connected to a unit or by Rapid Eye's motion detection.

- **customer-device**. Messages from a cash register, card swipe and so on, that can be sent to a Multi-Media unit.

- **Multi-Media unit**. For notification a Multi SA of events at the unit. Extended power outages that stop a unit can also be monitored by connecting a Multi-Media unit to an alarm panel. See 6.11: *Fault Relay*, on p. 6–21.

- **View operator**. An administrator can trace events caused by View operators, such as use of a site, and so on. Notification of such events usually matters more than video.
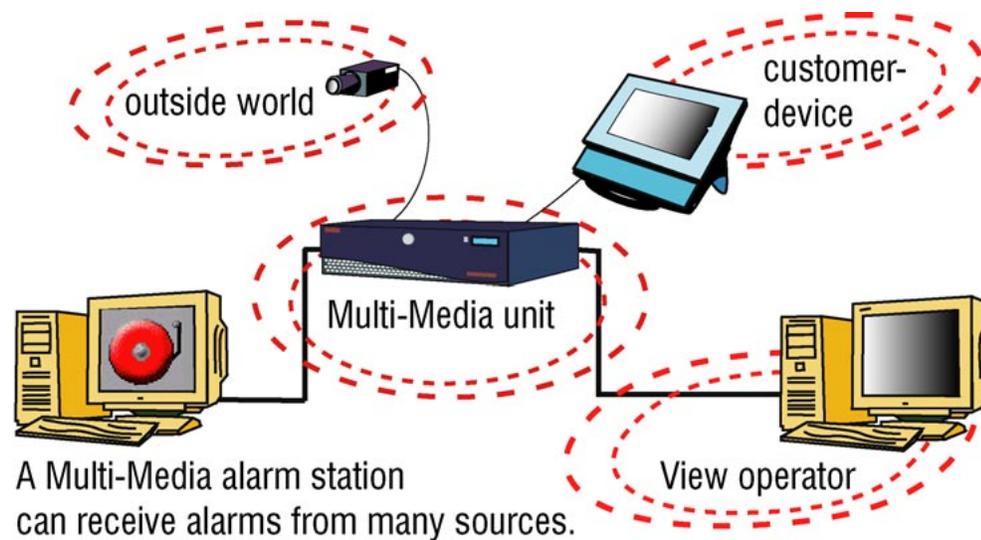
Fig. 64. Alarms can be triggered by different sources.

By default, events are *not* set to trigger alarms. Setting events to trigger alarms is an option; alternatively, events can be set to be only silently logged for administrative purposes, and some to do nothing. See also 6.7: *Setting an Alarm, on p.* 6–11.

Table 15
Event default settings for log and alarm

source	event	log	alarm
View operator	**Session**: *connect, reject* and *disconnect*	nil	nil
	Maintenance: *configuration, security, system files, synchronize time, clear storage, clear stream*	"	"
	Outputs: *activate*, *deactivate**	"	"
Multi-Media unit	**System**: *run-time failure, self-restart, reboot, no video recording, time server unusable, no synchronization in 24 hours, excessive system clock drift, SMART disk failure*	log by default	"
outside world	**Inputs**: *activate*, *deactivate*	nil	"
	Video: *signal unlock*, *signal unlock*	"	"
	*Motion***:** Not on Event tab; on the **Video** tab.	"	"
customer-device	*user defined:* Not on Event tab; on the **Serial Devices** tab.	"	"

* Control Output 6 is unavailable as an event when Fault Relay is enabled. The Control Outputs on a Multi-Media LT unit remain available when its Fault Relay is enabled.

Table 16
Event reference, by source and tab.

Source	Event in maintenance, except where noted	Cause: an alarm or log entry could indicate …
outside world	**System**: *no video recording**	a cut cable, dead camera, power outage
	Inputs: *activate*, input ports 1 to 16 **Inputs**: *deactivate*, input ports 1 to 16	security sensor has been triggered or the Multi-Media unit is booting security sensor has been reset or the unit is booting
	Video: *signal unlock*, cameras 1 to 16	cut cable, hardware failure in a Rapid Eye Multi Multi-Media unit, faulty camera… Can be momentary.
	Video: *lock*†, cameras 1 to 16	a buggy camera; time since video unlock helps troubleshooting
	*Motion***:** Not on Event tab; on the **Video** tab.	intruder, a change in lighting, fire, an explosion, vermin, and so on.
customer-device	*user defined:* Not on Event tab; on **Serial Devices** tab.	transaction made using hardware at a customer's facility
View operator	**Session**: *connect, reject* and *disconnect*	use/misuse of View to connect to or disconnect from a site. Session rejections can also be watched
	Maintenance: changes to *configuration, security, time, storage* and so on…‡	use/misuse of maintenance by an operator or Multi SA; for example to monitor **Clear storage** or **Synchronize time** by operator of View
	Outputs: *activate*, output ports 1 to 8	use/misuse of an onsite device by a View operator ex.: locking a gate at a site, by remote control
	Outputs: *deactivate***,** output ports 1 to 8	use/misuse of an onsite device by a View operator ex.: unlocking a gate at a site, by remote control
	System: *no video recording**	camera disabled by View operator
	System: *reboot*	use/misuse of **Reboot** command by operator
Multi-Media unit	**System**: *failure, self-restart, reboot*†	power failure or catastrophic failure of unit
	System: *No video recording**	failure of unit's video hardware
	System: *time server, no synch, clock drift…*	failure of network or network's time server
	System: *disk failure*	warning of imminent failure of storage

* Some events are repeated in the table: their source can vary. For example: an alarm triggered by an "outside world" events can also be triggered by rebooting a unit.

† A Multi SA can set a Video lock event to be only logged rather than trigger an alarm.

‡ Some configuration settings can be changed onsite, using *LocalView*. These changes are not logged nor do they trigger an alarm when the configuration event is set tot do so.

6.8.1 Testing Alarms

It is a good idea to test the alarms that you set. Find out if you are better served with a Live-alarmed response from View. To set alarm options, see 6.1.1: *Customizing Alarms,* on p. 6–2.

6.8.2 Logging Events Silently

"Logged" events that do not produce an alarm are stored in the Rapid Eye Multi-Media unit, onsite. Logged events are not listed in the alarm log; to find them, see 10.2: *Searching for Event* Records, on p. 10–1.

➢**89 To log an event**

1. While running a maintenance session, depending on the type of event that you want to set, either:

    • Click the **Events** tab. There are sub-tabs on the Events tab—for Session events, System events, and so on. Select a sub-tab, as needed. See figure 62, on p.6–13. Add a checkmark to the **Log** box next to the event that you want to log.

        - or -

    • Click the **Serial Devices** tab. Select a device and one of its events. Then click the **Log** box. The example in figure 63 shows a cash register **Device** and its **Events**.

For customer data events, click Update each time.

2. Repeat steps 1 and 2 for other events, as needed.
3. Click **Apply**/**Reset**.
4. You have the option of ending the maintenance session.

6.9 Reading the Alarm Log

The Alarm Log displays all alarms at all sites, whether acknowledged, rearmed or new.

Fig. 65. Alarm Log Search. The date uses a format from the Regional Settings of your Windows Control Panel.

➢90 To display the alarm log

1. Using View, click the **Log** action tab. The buttons on the View toolbar may change.

2. Leave or select another "earliest date and time" in the **Show Alarms from** boxes. See figure 65.

3. Leave or select another "latest date and time" in the **Show Alarms up to** boxes.

4. Click **Display Alarm Log** or Display . The alarm log appears in the session pane.

➢91 To input different times and dates

Click on the part of the time or date that you want to change. Then:

- press the cursor keys, $\rightarrow \leftarrow$, move the cursor to another field, and the $\uparrow \downarrow$ keys increase/decrease a value.

  - or -

- type a value, as needed.

You can display a calendar utility by clicking the arrow next to the date box.

➢92 To set the date using the calendar utility

1. Click the arrow next to the date box.

2. Click a date in the calendar. To go to another month, click the arrow keys next to the month/year heading in the utility.

You cannot go beyond the limits of the log

Attempting to input or select dates or times beyond the limits of the log sets the input to that limit.

➢93 To find out about the earliest/latest alarm in the log

- Click Properties in the toolbar.

6.9.1   Setting the Date for Correct Alarm Sorting

Multi-Media reports use true chronological lists of alarms only if care is taken to express the date in numbers.

Make the date display as "yyyy-MM-dd" in Microsoft Windows.

➢**94 To set the windows date**

1.   Using Microsoft *Windows*, click **Start**.

2.   Click **Control Panel** on the *Settings* menu.

3.   Double-click the *Regional Settings* icon. A *Regional Settings Properties* window appears. For Win2000 users: the icon is labeled "Regional Options" in Win2000.

4.   Click the **Date** tab.

5.   In the **Short Date Style** box, type "yy-mm-dd". What matters most is that one uses a "year, month, day" sequence and that months are expressed in numbers, not text. The double "m" and "d" ensure that single digits are padded with zeroes. For example, June 7 is expressed as 06/07. For Win2000 users: the box is labeled **Short Data Format**.

6.   Click **Apply**.

7.   Click **OK**.

6.10   Alarm Station

Alarm station definition

Although you can run many alarm sessions in sequence (a polling method), this may be inconvenient on Multi systems that rely on dial-up connections. Your Multi SA can configure a Rapid Eye Multi-Media unit to call a specific PC when an alarm is triggered by an event. Such a PC is then a *Multi Alarm Station*.

6.10.1   Alarm: Station vs. Session

Sites are set to call/callback *Multi alarm stations* by a Multi SA. Critical sites should be setup this way to ensure that alarms reach your alarm station, *even when there is no alarm session in progress.* For example, callbacks can be most effective for managing:

-    **A large number of sites.** It can be impractical to start, use and end alarm sessions on many video units, especially via dial-up. Having a Multi SA set up a callback frees you of polling the sites for alarms.

-    **24/7 situations.** Having a Multi SA set up a callback ensures notification of your alarm station. Alarm sessions can be ended.

Speed of alarm notification

After you have set events to "alarm", and alarm hardware connected to the video unit is triggered, notification of the event is either:

- **immediate.** Your Multi-Media units are networked to the alarm station or an alarm *session* is in progress at the site where the alarm occurs. Note that units using dial-up connections monopolize an operator's modem: it is not possible to run alarm sessions at many of these sites, at the same time. Until the alarm is rearmed, more occurrences of the event are ignored. However, you can record multiple occurrences of an event by silently logging them. See 6.8.2: *Logging Events Silently*.

- **within the minute.** Your Multi Administrator has set the video unit to "call" an alarm station, as soon as possible after an alarm. You are notified of the alarm *whether or not* an alarm session is in progress at that site. Should the alarm station be unavailable or busy, an attempt to call it back is made every minute until a connection to View is established. When more than one alarm station is assigned, they are polled in sequence.

  - or -

- **deferred.** When a Multi-Media unit is not assigned to an alarm station, the unit "holds" alarms until you start an alarm session for the site.

Alarm doubling

When a Multi-Media unit has been setup to call back an alarm station, and you happen to be running an alarm session at the alarm station, an event at the site triggers a call and an alarm.

6.11   Fault Relay

Your Multi SA has the option of enabling a FAULT RELAY on a Multi-Media unit.

➢**95 To check if this pulse is enabled on a unit**

- On the Events tab, click the **Outputs** subtab. The name of Output 6 shows "System Status Pulse"; however, others may have changed the name, by typing in the box.

Please continue.

7   Clips and Stills

7.1   Making and Saving a Clip

Definition

A clip is a copy of video, audio or data. A clip is made during a live session or a retrieval session. Clips are listed on the Clips action tab. See figure 66.

Purpose of clips

After using *View* to make clips, you can:

- view portions of video without having to connect to a site

- review clips at a later time

- copy clips to other computers. How to check folders for clips is explained in 7.2.

- view clips on computers not running Multi software, using *Clip Player*.

View's title bar reports that the Clips tab is selected.
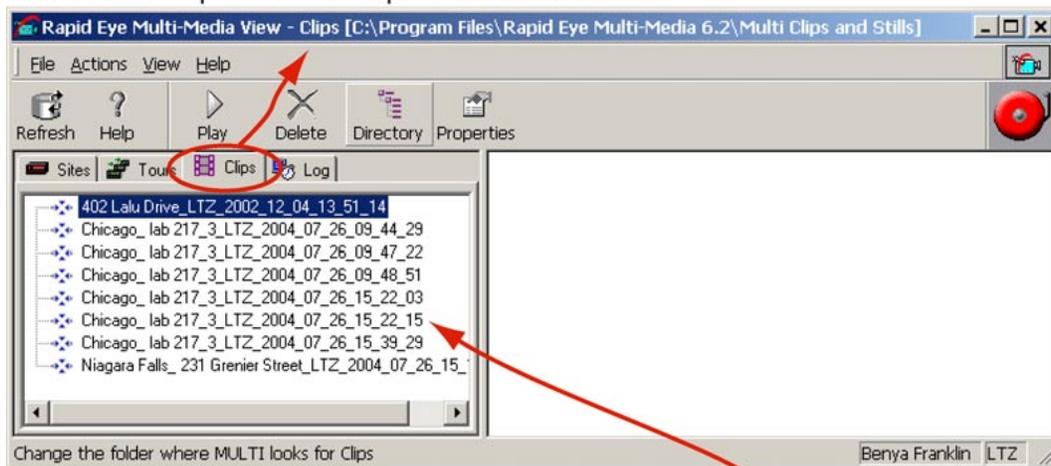
Listed on the Clips tab are the clips made by View operators.

Fig. 66. The Clips action tab in View software.

7.1.1   Clip of Live Video

Clips made from live video hold all streams, unlike clips made from recorded video.

➤96   To make a clip from live video

1. From a site, start a live session; see 2.1.1: *Starting a Live Session*, p. 2–1.

2. Select the streams that you need to record. Only the video that is being shown is recorded. You have the option of adding/removing streams while the clip is playing. Only while their camera windows are open will their video be part of the clip.

3. Click ▦ on the Playback toolbar. The color of the button changes to red and flashes, indicating that the video feed is being recorded.

4. When all the video you need is recorded, click ▦ again. A dialog is displayed: *Live at [site name] : **Save** Recorded Clip to File*.

5. You have the option of:

   • changing the name of the clip, by typing another name; the default for naming clips is explained in table 17, on p. 7–3.

   • choosing another drive and/or folder to store the clip.

6. Click **Save**. The clip is stored as a *.rem* file and the *Save As* dialog is closed.

7. You have the option of ending the live session; see 2.4 on p. 2–19.

> ⚠️ **Honeywell recommends storing stills and clips in their own folder.**
> Clips and stills can be erased routinely after use, making it easy to erase other files by mistake. Storing clips and stills in a folder other than View's application folder (the default folder for clips and stills) prevents the deletion of View system files.

7.1.2   Clip from Recorded Video

Clips made from recorded video only hold the streams that are used while making the clip, unlike clips made from live video.

➤97   To make a clip from recorded video

1. From a site, start a retrieval session; for a reminder on how to do this, see 3.1.2: *Starting a Retrieval Session*, p. 3–1.

2. Select the streams that you need to record. Only the video that is being shown is recorded. You have the option of adding/removing streams while the clip is playing. Only while their camera windows are open will their video be part of the clip.

3. Control the playback of the video (see 4.3) to determine where a clip is to begin. You have the option of clicking Pause.

4. Click ▦ on the Playback toolbar. The color of the button changes to red and flashes while recorded video is being copied to a clip. You have the option of clicking the **Fast Forward** button on the playback toolbar to reduce the time spent making the clip.

> **Making a clip of recorded video at a faster speed does not affect playback.**

5. When all the video you need is recorded, click 🎞 again. A dialog is displayed: *Retrieval at [site name]: **Save** Recorded Clip to File*.

6. As you would with any file, name the clip and choose a folder where the clip will be stored. When you save the clip, it is stored as a *.rem* file and the *…Save…* dialog is closed.

7. You have the option of ending the session. See 3.4, on p. 3–8.

> **Honeywell recommends storing stills and clips in their own folder.**
> Clips and stills can be erased routinely after use, making it easy to erase other files by mistake. Storing clips and stills in a folder other than View's application folder (the default folder for clips and stills) prevents the deletion of View system files.

7.1.3 Clip: Name Reference

Table 17 explains each part of a clip's filename, using as an example: **402 Lalu Drive_LTZ_2002_12_04_13_31_14.REM** . Note the ".REM" extension of the file.

Table 17
Default format for Multi clip names

Example*	Format element
402 Lalu Drive	site name
LTZ	time reference
2002	four digit year
12	two digit month
04	two digit day
13	two digit hour, 24 hour clock
51	two digit minute
14	two digit second
.rem	Microsoft Windows file extension
REM File	file "Type" in Microsoft Windows' Explorer

* See the clip listed in figure 67.

> **You have the option of renaming clips.**
> See 7.1.1, above. Leaving the ".REM" file extension is recommended.

7.1.4 Automatic Clip of Alarms

You can set View to make a clip automatically during a "live alarmed" session. The opportunity to save the clip (or discard it) is offered when the session is closed. See the **Automatic record for live alarm** option in 6.1.1: *Customizing Alarms,* starting on p. 6–2.

7.1.5 Customizing Storage

Clips and stills are stored by default in the Multi application folder. To store them elsewhere, use the next procedure (98) to create a folder.

➢**98 To create a folder to store stills and/or clips**

1. Using View, click the **Clips** action tab.

2. Click the **Directory** button.

3. Click the "create new folder" button, 🗂️ .

4. Type the name of your choice for the stills and clip folder, such as: "Multi Clips and Stills".

5. Double click the icon of the folder that you have added.

6. Click **Open**. The folder that you have added and named will hold all clips and stills made from then on.

The "REM File" in the file **Type** column means the clip was made using Rapid Eye Multi-Media.
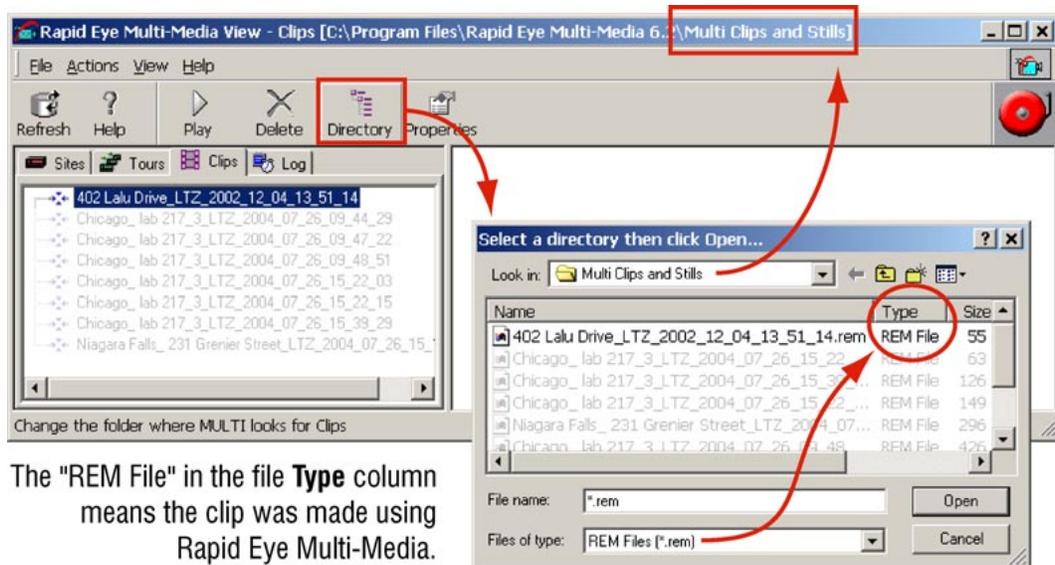
Fig. 67. Changing the folder for Multi stills and clips to "Multi Clips and Stills".

> **Honeywell recommends storing stills and clips in their own folder.**
> Clips and stills can be erased routinely after use, making it easy to erase other files by mistake. Storing clips and stills in a folder other than View's application folder (the default folder for clips and stills) prevents the deletion of View system files.

➢**99 To browse other folders for clips (*.REM files)**

• Click [Directory] in the toolbar (or on the Actions menu).

➢**100 To delete a clip**

1. Click a clip on the **Clips** action tab.

2. Do one of the following:

• Click ✕ Delete in the Toolbar.

- or -

• Right-click on the recorded name and select [Delete].

7.2 Viewing a Clip

Play options

Using View, you can play

- **one clip at different speeds,** as during a retrieval session.

- **many clips at once, *each in its own session*.** Use this to compare two scenes or two subjects at different times.
  - or -

- **copies of the same clip.** Use this to compare a clip with itself, to note minute details of what is captured on video, or to compare two times within the same clip.
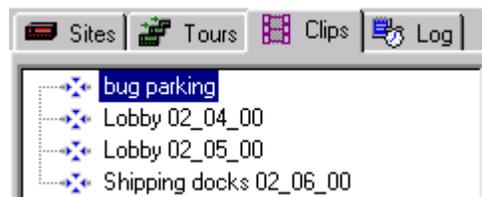
Fig. 68. List of clips on the **Clips** action tab

➢**101 To view a clip**

1. Click the **Clips** action tab in the Multi View window.

2. To view the clip, do one of the following:

- Double-click its name on the **Clips** action tab.

- Click its name and click [Play] on the Toolbar.

  - or -

- Right-click on its name in the **Clips** action tab and select [Play].

➢**102 To view a clip in reverse**

- For clips, Backwards and Rewind VCR-like buttons are added to the playback toolbar. Click them as required.

7.2.1 Using MultiClip Player

The MultiClip Player utility can play back clips on personal computers that are not part of the Rapid Eye / Multi system. It is available for free, from:

http://www.ademcovideo.com/products/DigitalVidStor/REMultiMedia.htm

➢**103 To play *.rem files with the MultiClip Player program**

1. Use standard Windows techniques to install REMClip.exe to a workstation.

2. Obtain a clip (*.rem file) from a Multi View user.

3. Associate *.rem files with MultiClipPlayer.exe, using standard Windows techniques.

4. Open the clip.

There is no need for MultiClip Player on a PC running View software; MultiClip Player cannot be installed on PCs running View software.

⚠️ | **Double-clicking several *.rem files causes multiple MultiClip Player sessions to be opened. To free up Windows resources, remember to close MultiClip Player sessions when finished.**

7.3   Coarse Editing

Comparing events: making a clip with a jump

While making a clip from recorded video: after clicking 🎞️ on the Playback toolbar, you have the option of using the **Go to** command 🎯 to jump to a past or future time. This coarse editing is useful for comparing two events within the same clip.

7.3.1   Time Gap

Jumping into the future

Making a clip of two segments, say from 8:00 AM to 8:05 AM, on two consecutive days, introduces a gap of 24 hours in the clip. On playback, the clip stops at the point where the jump occurs, until the time of the next image. Rather than waiting 24 hours through the gap, use procedure ➢104 to see the clip in a reasonable amount of time.

➢**104 To avoid waiting for a clip to resume playing, when it contains a time gap**

- When the video reaches the gap and appears paused, click **Pause**, then click **Play**.

Jumping into the past

One way to avoid gaps is to jump *back*, rather than forward in time. For example: for a clip of two segments, say from 8:00 AM to 8:05 AM, on two dates, start with the later date. By doing so, the clip fools playback into believing there is no gap. Since the second segment is in the past, it is played immediately.

7.3.2   Viewing Many Clips at Once

Another way to compare video is to play two or more clips.

➢**105 To compare clips**

1. View a clip (see 5.2).
2. Drag the tear-away player from the session pane; to do so, see figure 9 on p. 2–3.
3. Repeat steps 1 and 2 as needed.

➢**106 To view copies of the same clip at once**

To highlight a portion of a clip, you may want to view a copy of it slightly out of sequence with the original.

1. Using Microsoft Windows' Explorer, duplicate the *.rem file in its folder. To do so, use Windows explorer to locate the file and to make a copy of it in the same directory. By default, Windows makes a copy of *filename* and names it *copy of filename*. Use standard Windows techniques to rename the copy of the file as you see fit.

2. Play the original clip.

3. Drag the tear-away player from the session pane.

4. Play the copy of the clip. Each clip is in its own session, making it easy to pause one of the clips at some point (for example, before a theft), and then to pause the copy at some other point of interest, for the sake of comparison (for example, after the theft).

7.4   Stills

Handouts for users and non-users of Rapid Eye Multi

You can distribute stills of video as computer files. They are known as "bitmaps" in View software. These stills can be viewed and printed using any bitmap reading software, such as: Corel *Paint Studio*, Adobe *Photoshop*, Microsoft *Paintbrush*, and others.

7.4.1   Producing Stills

➢**107 To enable View to produce bitmaps**

1. While running View, click **Options** on the *View* menu, then click **New Players**. The *Options for New Players* dialog appears.

2. Click the **Allow Bitmap Save from Video** checkbox, so that it bears a checkmark. See figure 69.

3. Click **OK**.
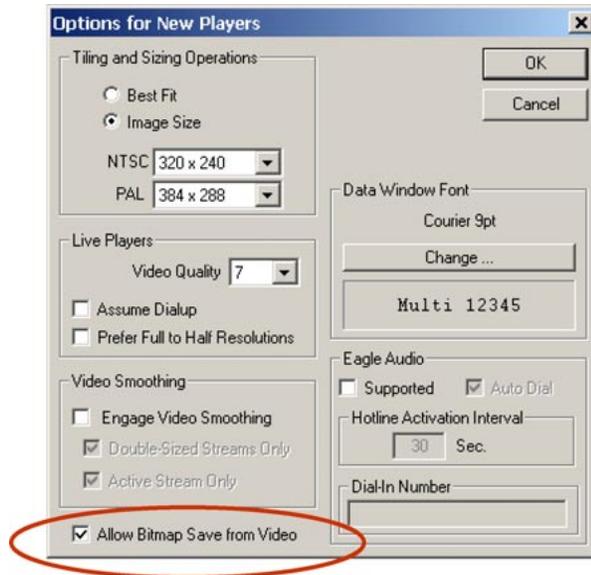
Fig. 69. Enabling production of still shots from video (i.e. bitmaps).

After enabling *View* to produce bitmaps, a stills button appears on the session toolbar when you run live, retrieval or clip sessions. See figure 70.

Many bitmaps from one click

Stills are produced at a rhythm matching the camera frame rate. For example, setting cameras to capture 10 frames of video per second each produces ten bitmap files (*.BMP) per second, *per open camera*. The size of Multi-Media bitmap files varies with resolution. See table **19**. Stills can also be obtained while viewing a video clip; see 7.2: *Viewing a Clip*, above.
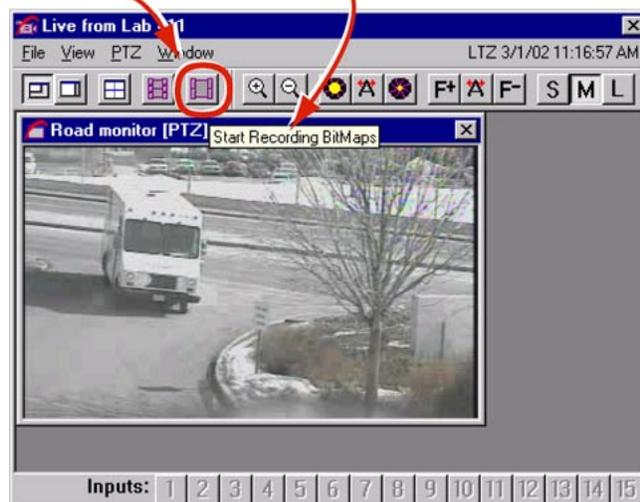
Fig. 70. Button for stills— "**Start Recording Bitmaps**"—shown in a live session.

> **Honeywell recommends that when producing bitmaps for more than a few seconds, the operator keep an eye on the PC's hard disk; bitmap production can quickly fill up a PC's storage.**

➢**108 To produce bitmaps of a camera feed**

- While running a live, retrieval or clip session, click the stills button. The button starts flashing.

➢**109 To stop producing bitmaps of a camera feed**

- While the stills button is flashing, click it.

7.4.2   Still: Name Reference
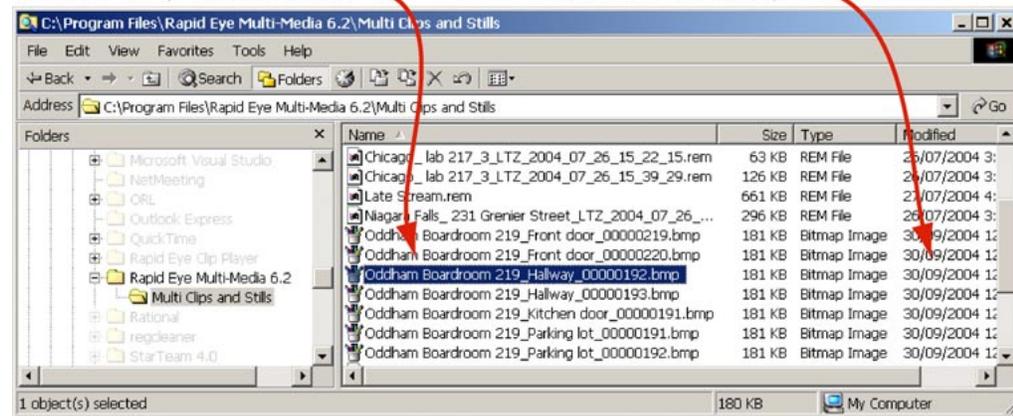
Fig. 71. Stills listed on the **Clips** action tab. Note the *****.bmp files.

Microsoft Windows file explorer

The **File Type** for bitmaps is "Bitmap Image" in Windows. File names are a combination of the site name, camera name and a number, each separated by an underscore.

For example, the file name of an image (saved as a still) could be:
Oddham Boardroom 219_Hallway_00000192.bmp .

You have the option of renaming stills.
Honeywell recommends leaving the file extension as ".bmp".

The name's parts are defined in table 18.

Table 18
Name format for Multi stills (bitmaps with *.bmp extensions)

Example	Meaning
Oddham Boardroom 219	site name
Hallway	Camera name
00000192	eight-digit, sequence number
.bmp	extension
Bitmap Image	Microsoft Windows file **Type**

7.4.3   **Still: Size Reference**

The size of Multi-Media stills gets bigger with higher resolution. For the meaning of resolution gauge readings and resolution settings, see 2.2: *Resolution* of Live Video, starting on p. 2–8.

Table 19
Size of Multi-Media stills (bitmaps with *.bmp extensions) as a function of resolution

resolution (pixel×pixel)	bitmap size (KB)	gauge*
NTSC		
704×480	991	
640×480	901	
640×240	451	
320×240	226	
legacy + crop	226	**n/a**
legacy	181	**n/a**
160×120	57	
PAL		
704×576	1,189	
704×288	595	
384×288	325	
192×144	82	
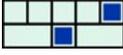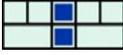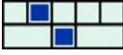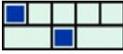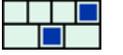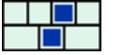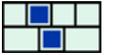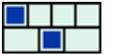
* Shown at time bitmap was made. The gauge does not appear in the bitmap.

8   Audio

8.1   Overview

Flexibility of Multi audio

Like most of the Multi features, use of audio is optional. Audio can monitored and recorded along with video or independently of it.

Your Multi system administrator (Multi SA) can inform you about which Multi sites have audio in an operational state.

Hardware need

View operators need a sound card in their PC to hear sound from the Rapid Eye site, to send sound to it and to have the audio toolbar shown in figure 2, appear in the session pane.
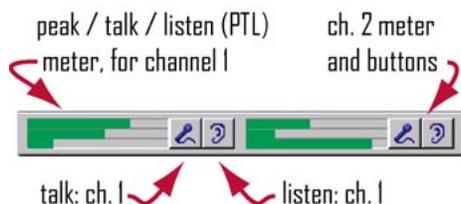
Fig. 2.   Audio toolbar. When the mouse pointer is placed on a button, "tool help" appears to identify the channel.

A Multi-Media unit offers two channels of audio. Each channel of sound can be monitored independently or together. For Multi-Media LT, see 8.5: *Audio for Multi-Media LT*.

The audio toolbar (illustrated in figure 2) does not appear on a PC without a sound card.

8.2   Live Audio

To listen to a Multi site

- Click the **channel 1 Listen** button on the audio toolbar,
  the **channel 2 Listen** button or both. See figure 2.

Listening is metered at the bottom of the peak-talk-listen metering of each channel. See figure 2. Many users running live sessions to the same Multi site can listen in at once. All sound sources are mixed at a Multi operator's station, regardless of the number of sites being monitored at once.

> ⚠️ **Do not use audio on a dial-up connection with video.**
> Video can be corrupted due to bandwidth limitations. Live video can be combined with audio only on a network connection.

To minimize background noise

- End audio monitoring of the Multi sites that do not need it.

> **Background noise can build-up as an operator monitors more sites all at once.**

To talk to a Multi site

- Click the **channel 1 Talk** button on the audio toolbar, the **channel 2 Talk** button or both.

Talk is metered in the center of the peak-talk-listen metering of each channel. See figure 2. An operator
can broadcast on either or both channels, and *to as many sites at once* as can be opened, that have audio.

Talk button availability

Use of **Talk**, is on a first-come-first-served basis. When two or more View operators start live sessions at one Multi site, only the first to connect to the site will find the **Talk** button available. The **Talk** button on other View operators' PCs is unavailable until the first user disconnects.

When two View operators start live sessions at *different* Multi sites, each can use the **Talk** button, *unless one is logged into the other's site as well*.

LocalView

At sites where LocalView is in use, one channel of audio can be reserved for onsite use. View operators using these sites can use only the remaining channel of audio.

See also

video. See 2: *Live Video*, on p. 2–1

data. See 11.1: *Live Data*, on p. 11–1.

8.3   Recorded Audio

Recorded audio is available along with video when performing a retrieval session. Your Multi system administrator (Multi SA) can inform you about which Multi sites are set to record sound.

See also

video. See 3: *Recorded Video*, on p. 3–1

data. See 11: *Customer Devices*, on p. 11–1.

In many situations, unwarranted recording of audio can be unlawful. Check with local authorities if you are unsure.

8.4   Setting Up

Audio setup is performed during a maintenance session. Microphones, speakers, and so on are needed for audio, both at the operator's station and at the Multi-Media site. For audio setup procedures, see the *Multi-Media Unit Installation Instructions*, K9696 and the *Admin User Guide*, K5403.

8.5   Audio for Multi-Media LT

8.5.1   Broadcasting and Monitoring Audio

Audio from a Multi-Media LT unit offers a single channel of audio that can be used during live sessions and retrieval sessions.

Do not use audio on a dial-up connection with video.
Video can be corrupted due to bandwidth limitations. Live video can be combined with audio only on a network connection or from a LocalView station.

Audio toolbar

The audio toolbar for a Multi-Media LT unit shows one talk and one listen button. See figure 3.
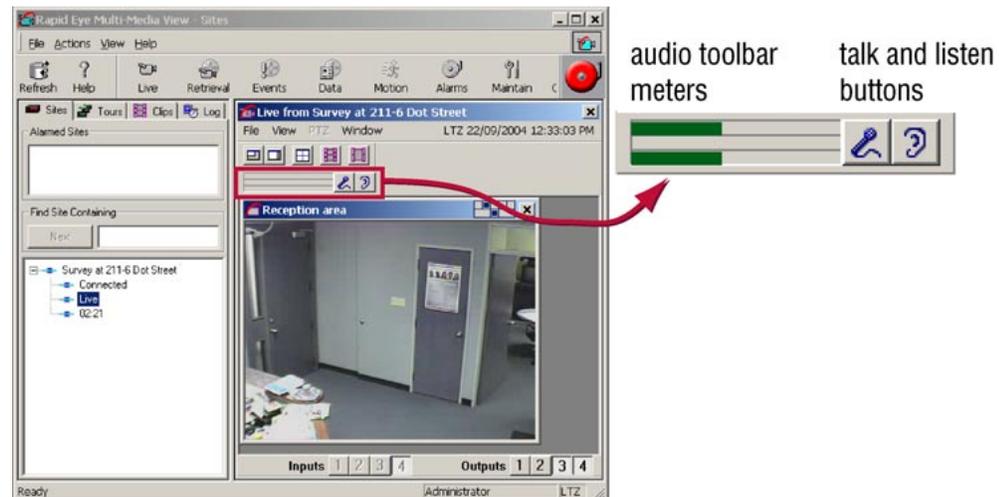
Fig. 3.   **Audio toolbar for a Multi-Media LT unit, when using View.**

➤**110 To interrupt an audio broadcast**

- Use either the microphone's ON/OFF switch or the Talk button. Do not use the gain controls in Maintenance.

Testing recording

If audio recording is used, Honeywell recommends testing if the recorded audio meets your needs. After recording a few typical audio interactions, run a retrieval session to hear what was recorded. You may need to further adjust the gain controls for microphones and the volume on your speaker systems. Testing while audio interference occurs (alarm bells and so on) can reveal other needs.
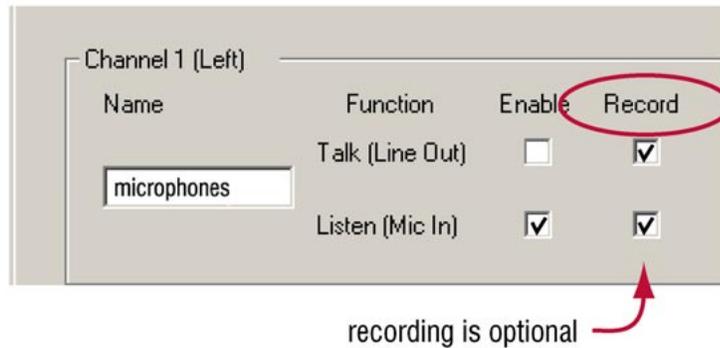
Fig. 4.   **Audio tab detail. You have the option of recording audio.**

In many situations, unwarranted recording of audio can be unlawful. Check with local authorities if you are unsure.

Loud alarms can interfere with microphones or a speaker at times when they could be needed most.

8.6   Eagle Audio

Eagle Audio is an optional audio interface; it is discussed in the *Multi and Eagle Audio Configuration Guide*, part number K9203. *Eagle Audio* is not explained or described in this document.

9   Watching Site Tours

9.1   About Site Tour

Flexibility

Like most of the Multi security features, use of site tours is optional. Your Multi system administrator (Multi SA) can inform you about which sites (if any) are part of a tour. Multi View Operators can consider these guidelines as suggestions. They are intended to complement your organization's security policies and procedures.

Process

Site Tour acts like a security guard: "electronically" visiting sites in a sequential order. Once each site has been configured in the Rapid Eye / Multi Admin software to be part of the Site Tour, you can connect and view the images on all available cameras at each of the sites in the list. The specified duration in the Admin software limits the amount of time that you can spend monitoring each site.
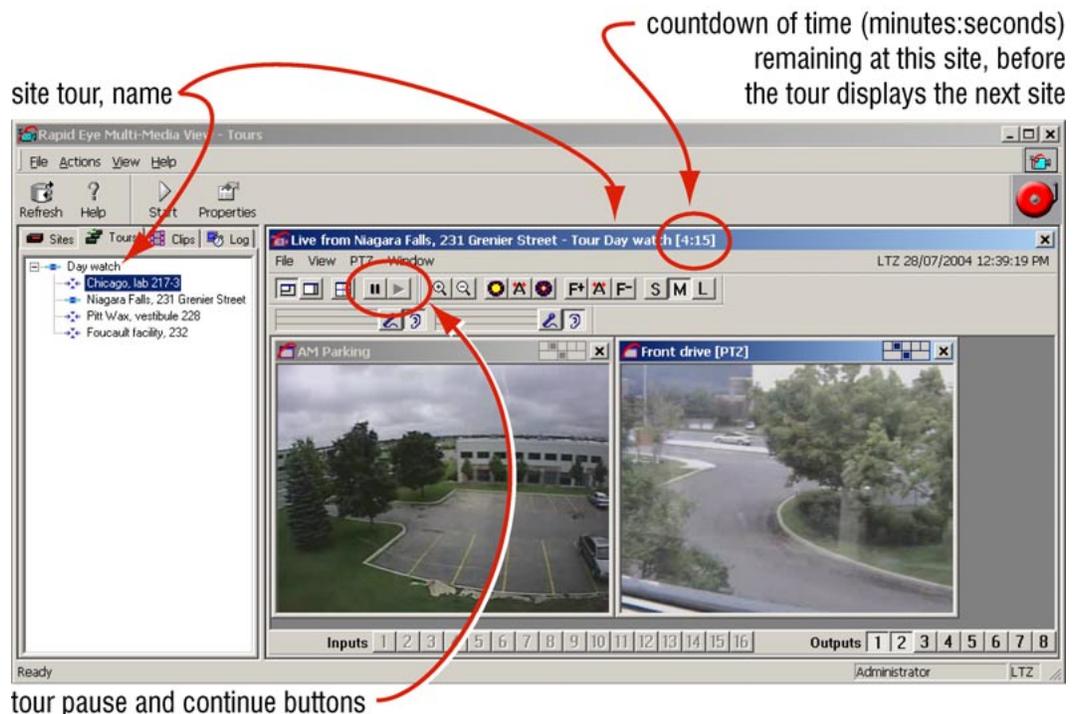
Fig. 72. Site tour information is displayed in the title bar

⚠️ **To set up a Site Tour, you need a Multi SA account and Admin software.**
See the *Rapid Eye Multi-Media Admin User Guide* for information.

9.2   Running a Site Tour

➢**111 To start a Site Tour**

1.   Click the Tours action tab in the Multi View window. Tours that are listed have been set up using the Admin software.

Fig. 73. Samples of Site Tours in List

Click ⊞ beside the tour name to display the sequence of the sites that will be toured. Click ⊟ beside the tour name to collapse the branch.
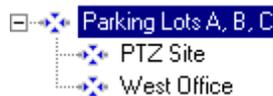
Fig. 74. Site Tour Information Displayed in Title Bar

2.   Select a tour on the tab and do one of the following:

3.   Click [▷ Start] in the Toolbar.

4.   Double-click the site listed in the Tours action tab.

5.   Right-click on Tour name and select [Start]. The first site is connected and all available camera images are tiled on your screen. After the specified duration, the current site is disconnected and the next site is connected and displayed. After the last site is disconnected, the Site Tour loops back to the first site.

6.   Observe the Player Window Title Bar that displays the site, tour name, and remaining time.

9.2.1   Managing a Tour

When you run a site tour, live video feeds are shown from many sites, one by one. By default, all of the cameras at a site are displayed during the site tour. However, you may close, add, and adjust camera settings while the site tour is in progress. See 2.1.3: *Managing Video Feeds,* on p. 2–4, and 4.1: *Adjusting a Video Feed*, on p. 4–1. Streams that are closed or added are displayed again once the site tour returns to the site.

Closing unnecessary camera windows increases the speed of the video feeds being displayed.
This can be useful over dial-up connections.

9.3 Site Tour: Properties

You can display properties of the site tour such as the sites to be visited and the duration of time of each. These properties reflect the site tour settings made using Admin software. See your Multi SA to setup or modify a site tour.

➢112 To display site tour properties

Do one of the following:

- Select a site tour on the Tours action tab and click [Properties] on the toolbar.

- Right-click on a site tour and select [Properties].

- Site Tour properties
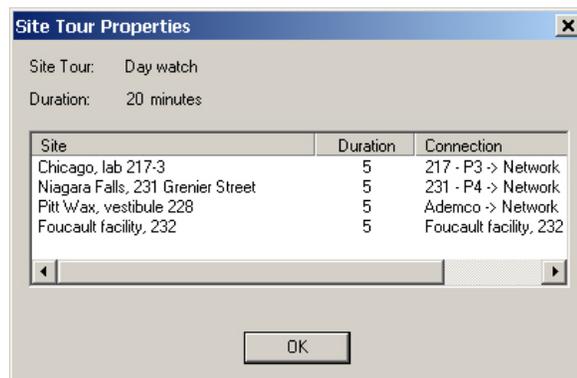
Fig. 75. Site Tour Properties dialog

9.4 Stopping a Site Tour

While viewing camera images when conducting a Site Tour, you can temporarily suspend a site. For example, if a robbery is in progress at one of the monitored sites, you can suspend the Site Tour until the event is resolved. Then, you can resume the Site Tour to continue to monitor other sites.

Once you resume, the site will be connected for the full duration time as specified for that Site Tour in the Admin software.

➢113 To pause a Site Tour

- Click [image] in the Player Window toolbar or select [File], [Suspend Tour]. Only the time duration of the site tour is suspended. The live video retrieval of the site is not affected.

➢114 To resume a Site Tour

- While suspending a site tour, click [image] in the Player Window toolbar or select [File], [Resume Tour] to continue the tour. The current site tour resumes for the remaining time as displayed in the Title Bar before the next site configured in the tour is displayed.

9.4.1 Ending a Site Tour

➤115 To end a Site Tour

- Click the **x** in the top-right corner of the Site Tour window.

10 Event Search Session

10.1   Overview

Preparation: only "logged" events can be searched

Before you can search for the record(s) of an event, you or your Multi SA needs to set the event to "log" *prior to an event's occurrence*.

❶ After you set an event to be "logged", a log entry is made *on the Multi unit*, each time that the event occurs.

event!

❷ To list the log's entries, use View's "Event Search".

Fig. 76. You can set a Rapid Eye Multi-Media unit to log an event.

See also

6.8.2: *Logging Events Silently*, on p. 6–18.

10.2   Searching for Event Records

➤116 To find and list records of events

1.   Click on a site in the Sites tab

2.   Display the *Events* window by clicking [Events] on the Toolbar.

3.   Select events that you want to search for by: clicking an event tab (see figure 77, "Inputs" is selected) and clicking a checkbox next to the event, so that it bears a checkmark.

4.   Enter a date and time in the **From** and **To** boxes. Use of these boxes are explained in the next procedures.

5.   Click **Start Search**.

The Start Search button is unavailable until dates and times differ in From or To.

➤**117 To input different times and dates**

Click on the part of the time or date that you want to change and either:

- press cursor keys on the keyboard. The → ← keys move the cursor to the next field, and the ↑ ↓ keys increase/decrease a value.

- type a value, as needed.

➤**118 To set the date of a retrieval with the calendar utility**

1. In the Stream List dialog, display the calendar utility by clicking the arrow next to the date box.

2. Click a date in the calendar. To go to another month, click the arrow keys next to the month/year heading in the utility.
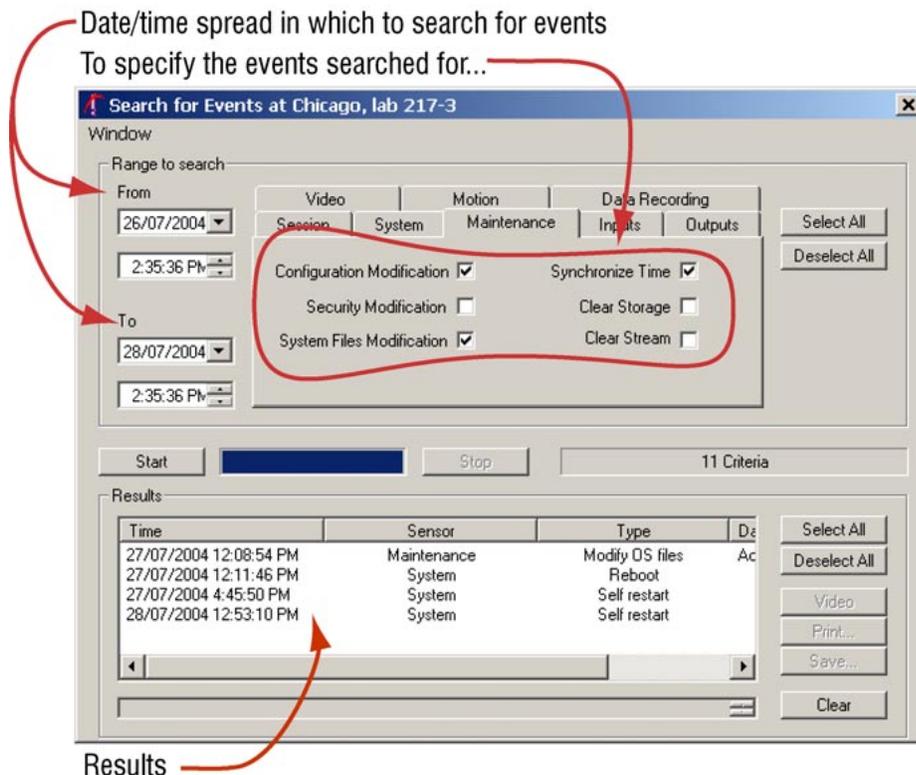
Fig. 77. *Search for Events* window

You cannot go beyond the limits of the log

Attempting to input or select dates or times beyond the limits of the log sets the input to that limit.

10.2.1 Data Recording As Event

You can search for data recording rules for customer devices as you would other events. However, there are no checkboxes for data recording rules. You have to click on a rule, to find instances of it. For another utility used to search data recording records. See 11.3: *Searching for Data*, on p. 11–1.

10.3   **Results**

You can use the search results to:

- view video from the time of events located by a search.

- print the log entry of an event

  - or -

- make a copy of the log entry in a *.txt file.

➢**119 To view video from the time of an event**

1.   Locate records of events, as explained above, in 10.2: *Searching for Event* Records.

2.   From the results (see figure 77), select a record. The Video button becomes available.

3.   Click **Video**. A retrieval session starts, that is quite similar to the one in section 6.5: *Video from Site of Event:* Options, on p. 6–8.

4.   To control the playback and manipulate the recorded video windows, use the buttons in the Playback toolbar, as explained in 3.2: *Controlling Playback*, on p. 3–3.

5.   To go back to the Events window, either close the Video Retrieval window or click the word "Events" on the Sites tab.

➢**120 To print a log entry**

1.   After locating records of events, as explained above, in 10.2: *Searching for Event* Records, select a record. The **Print** button becomes available.

2.   Click **Print**.

3.   Click **OK**. A Font dialog appears. Select a font. Click **OK**.

Please continue.

11 Customer Devices

11.1 Live Data

Messages from hardware

Hardware devices that provide messages over a serial cable can be connected to a Multi-Media unit. These messages can be viewed in real time, in a live session.

See also

video. Section 2: *Live Video*, on p. 2–1.

audio. Section 8.2: *Live Audio* on p. 8–1.

11.2 Recorded Data

Purpose

View can be used to search for *messages* from non-Multi hardware devices/systems such as: cash registers, door access sensors, a guest registration system, and so on. Recorded video can be obtained from the time of the message. This technique is a powerful asset to surveillance technology.

A cash register is used as an example to illustrate the procedures in this section.

See also

video. See 3: *Recorded Video*, on p. 3–1.

audio. See 8.3: *Recorded Audio*: on p. 8–2.

11.3 Searching for Data

Preparation

Before searching for customer events:
- Data devices need to be connected and assigned to a Multi-Media unit.
- A View operator needs to know how to identify the rule ("string" of text) of the event. You can also use regular expressions to search for rules. Regular expressions are listed in table 20, on p. 11–4.

Results

You can use the search results to:
- view video from the time of an event
- print the details of an event
- save the event details to a *.txt file.
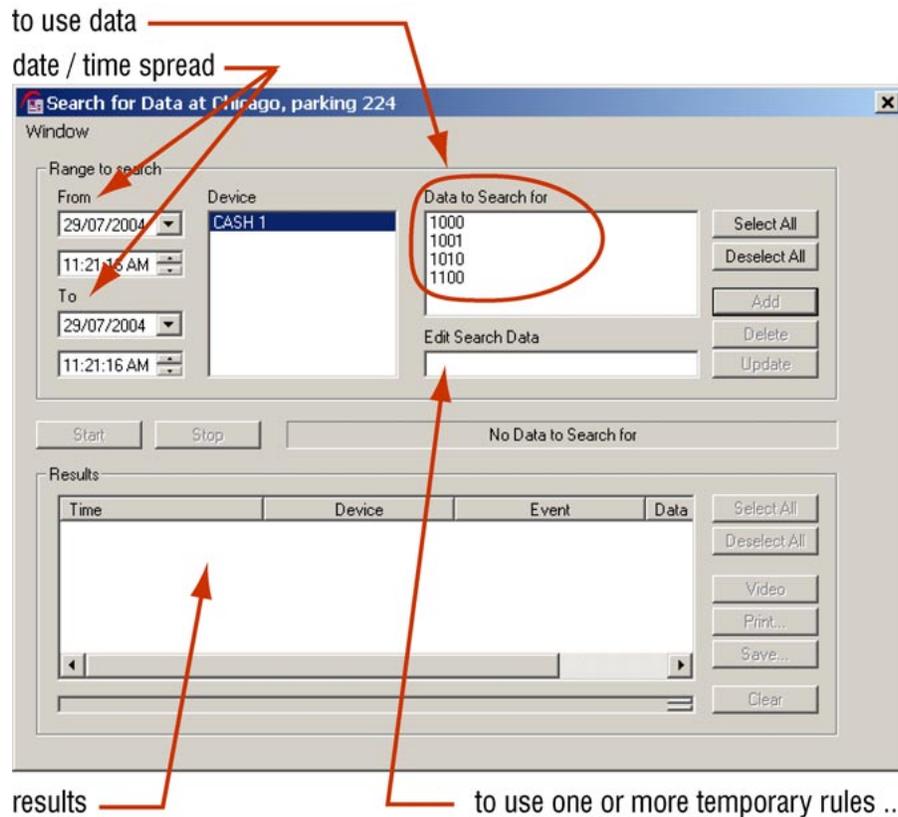
Fig. 78. *Search for Data* window

➤**121 To find and list records of events**

    1.   Click on a site in the Sites tab.

    2.   Display the *Events* window by clicking [Data] on the Toolbar.

    3.   Either:

    •   select events that you want to search for, by selecting them.

        - and / or -

    •   type an ad hoc rule in the Edit Search Data box, then click **Add**. Regular expressions can be used to search. Table 20 on p. 11–4 lists the special characters that can be used for performing an extended search.

    4.   Enter a date and time in the **From** and **To** boxes. Use of these boxes is explained in the next procedures.

    5.   Click **Start**. The **Start** button is unavailable until the dates and times differ in **From** and **To**.

➤**122 To input different times and dates**

Click on the part of the time or date that you want to change and do one of the following:

    •   press cursor keys on the keyboard. The → ← keys move the cursor to the next field, and the ↑ ↓ keys increase or decrease a value.

    •   type a value, as needed.

Calendar

You can display a calendar utility by clicking the arrow next to the date box.

➢**123** **To set the date of a retrieval with the calendar utility**

1.   In the Stream List dialog, display the calendar utility by clicking the arrow next to the date box.

2.   Click a date in the calendar. To go to another month, click the arrow keys next to the month/year heading in the utility.

You cannot go beyond the limits of the data

Attempting to input or select dates or times beyond the limits of the data sets the input to that limit.

Matching data to labels

Labels are associated to serial device data during a maintenance session; see 11.3.2: *Defining a Data Message*, below. The labels can also be viewed in an Events session.
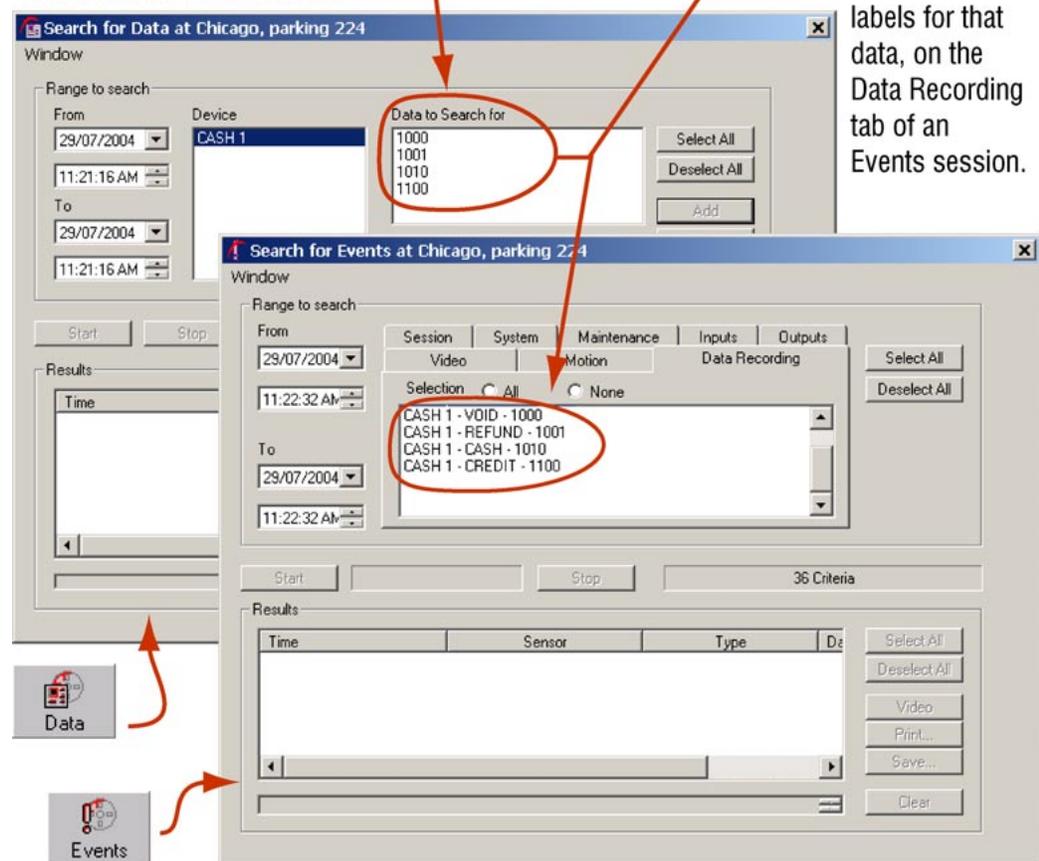
Fig. 79. Reminder of data labels in *Search for Events* session.

➢124 **For a quick reminder of the labels associated with serial device data**

- Run a Search for Events session, as explained in 10: *Event Search Session*, p. 10–1, and click the Data Recording tab. The data/rules are listed along with its labels. These are the same labels that are assigned to data during the maintenance session for the serial device.

11.3.1　　Regular Expressions

Technical note on special characters

Table 20 lists the special characters that can be used for performing an extended search.

Table 20
Search rule: regular expressions and special characters

Character	Name	Searches for a match of (…) within the rule
.	period	Any one character. Ex: **.ire** finds "wire", "tire", "4ire", and so on.
[ ]	square brackets	Each character in the brackets, in turn. Ex: **c[aou]t** finds "cat", "cot" or "cut".
^	caret	(*a*) Characters that are *not* in brackets. Ex: **r[^a]** finds "rb", "rc", "rA", "r1" and so on. (*b*) A rule at the beginning of a line, when placed before it. Ex: **^Hume** finds only "Hume" at the beginning of lines. (*c*) A control code, when used with a backslash. Ex. **\^C** finds the "control-C" control code.
$	dollar sign	A rule at the end of a line, when placed after it. Ex: **Kant$** finds only "Kant" at the end of lines.
-	dash	A range of characters set in square brackets. Ex: **[a-z]** matches any lower case letter.
+	plus sign	The character that it follows, once or more. Ex: **tu+** finds "tu", "tuu", "tuuu", and so on.
*	asterisk	The character that it follows, whether absent, occurring once or more. Ex: **mo*e** finds "me", "moe", "mooe", "moooe", and so on. Ex: **c[au]*t** finds ct, cat, caat, cut, cuut and so on.
?	question mark	The character that it follows, whether absent or occurring once. Ex: **me?y** matches either "mey" or "my".
\	backslash	(*a*) Chars, when placed prior. Ex: **\?** Finds "?" (*b*) Control character, when placed before their symbols. Ex: **\e** an Esc (escape), **\f** a form feed, **\n** a new line, **\r** a carriage return and so on.

> **Technical users who know how to use a regular expression (RE) benefit most from using the special characters in a rule.**

11.3.2   Defining a Data Message

What you need to know

You can define messages from a customer device as:

- customer-device *events* for Multi, during a maintenance session, by using the Data Recording tab (illustrated in figure 80). This is usually best handled by your Multi SA.

  - or using -

- ad hoc means, by typing in a data rule and using regular expressions.
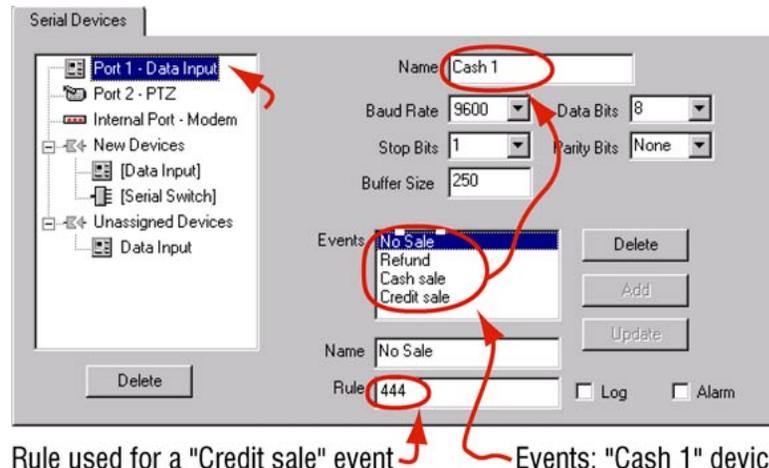
Rule used for a "Credit sale" event → ← Events: "Cash 1" device

Fig. 80. The rule for a customer event can be viewed on the Data Recording tab.

Preparation

Before defining customer events, a View operator needs:

- **specific rights** in an operator account: (*a*) the *Modify configuration* right and (*b*) access to the site that is plugged into the customer-device.

- **to know how rules** ("strings" of text) are formatted by the customer device.

- **confirmation that the Multi SA** has configured Multi to use the customer device(s).

Listing customer devices

Let us suppose that the owner of a retail store wants to obtain video of an employee at a point of sale (POS), when goods are purchased.

Assume that a cash register is connected to a Multi-Media unit. Your Multi SA has consulted the manufacturer of the cash register to obtain its communication settings and configured Multi to use the unit.

➤**125 To add a data-recording rule to a customer device**

1. Select a data-recording *device*, click the Events **Name** box, and then type a name.

2. In the **Rule** box, type a code *obtained from the cash register manufacturer*. For example, a *credit sale* message could simply be coded as "CARD", a number or some other rule.

3. Click **Add**, on the Events side of the tab.

4. Compare the value in the **Buffer Size** box to the possible length of data returned by rules typed in step 2. Adjust the record length so that it is greater than, or equal to, the longest data set returned by the rule. Consider that certain rules use wildcards (see table 20), and that the length of the returning text string may be hard to predict. A default value of 250 satisfies most applications.

5. Click **Add** on the *Device* side of the tab.

6. Click **Apply**.

➤**126 To list the data-recording rules of a customer device**

1. Start a maintenance session for the Rapid Eye Multi site. Please wait until the "System Operational" message is displayed.

2. Click the *Data Recording* tab. Customer devices are listed in the **Devices** box. See figure 80.

3. Select a customer device. Its events are listed in the **Events** box.

Once a rule is defined, you can use it to trigger an alarm, to be logged silently or both. To find out how events from customer devices can:

- trigger alarms, see 6.7.3: *Customer Device*, on p. 6–14

- be logged silently, see 6.8.2: *Logging Events Silently*, p. 6–18

12 Scheduling

Flexibility

Use of scheduling is optional. You also have the option of scheduling cameras and alarms before or after they are setup. Scheduling is performed unit-by-unit. A benefit of scheduling is that it spares storage on your Multi-Media unit.

In a nutshell

A Multi-Media unit can be set to record video only at times or days that you specify. For example, your organization might need to record video only for holidays or at night, and so on. You can also customize schedules for specific cameras, or groups of cameras.

Alarms can be scheduled as well; see 12.2 on p. 12–5.

Specifics

Each camera can be assigned to either a:

- **"basic" schedule.** The simplest way to assign cameras to the same schedule. See 12.1: *Camera* Schedule and 12.1.1: *Holiday and Exception*.

- **custom schedule.** See 12.1.2: *Customizing Schedules.*

- **another camera's custom schedule.** Cameras can be grouped into one of many schedules. See 12.1.2: *Customizing Schedules.*
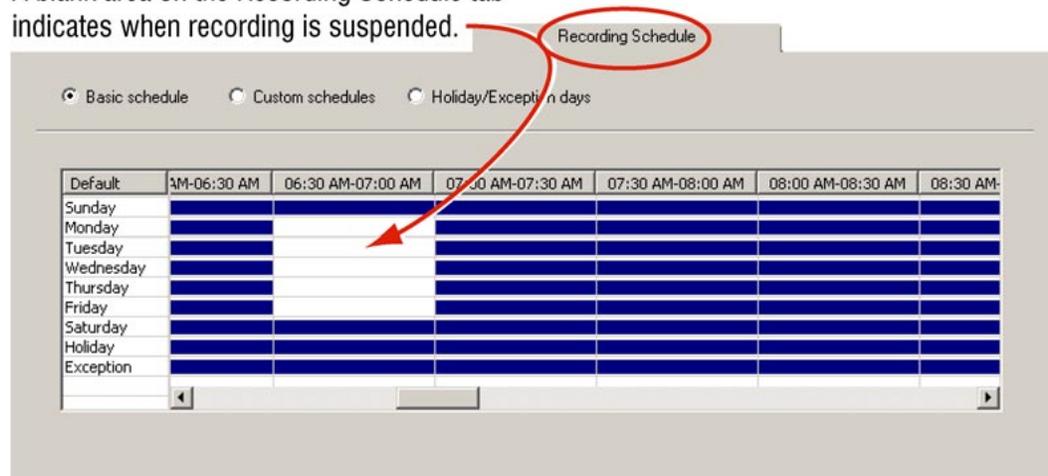
Fig. 81. Example of customized basic schedule: recording occurs at times other than 6:30 to 7:00, on Wednesdays.

Alarms

Alarms can also be scheduled; for example, you can set events to trigger alarms, but only after business hours, or at hours when it suits your organization most. Alarms are scheduled globally. See 12.2: *Alarm* Schedule*.*

12.1   Camera Schedule

Basic schedule

By default, all of a Multi-Media unit's cameras are assigned to the **basic schedule**. Customizing the basic schedule coordinates the recording of all cameras on that unit.

➢**127 To customize the basic schedule on one unit**

1. Continue or start a maintenance session for the Rapid Eye site, as explained in the *Admin User Guide*.

2. To use the Basic schedule grid, click the Recording Schedule tab.

3. The schedule grid can be modified in various ways, either:

• **cell-by-cell.** Click the cells of the Basic schedule grid as needed. Clicking the cells toggles recording from ON to OFF, or OFF to ON. See figure 81.

• **by a block of cells.** Drag the mouse pointer over cells. Release the mouse button and the cells within the dragged area change color; a menu appears showing **Fill block** and **Clear block** commands. Click a command, as needed.

• **globally.** Click the other mouse button to display a menu of commands for customizing more than one cell at once: **Clear row**, **Clear column**, and so on.

➢**128 To customize the basic schedule on other units**

• You have the option of repeating procedure ➢127 for other Multi-Media units in your system.

12.1.1 Holiday and Exception

For cameras

Holidays and exception days on the **Recording schedule** and **Alarm schedule** tabs are set using the same procedure.
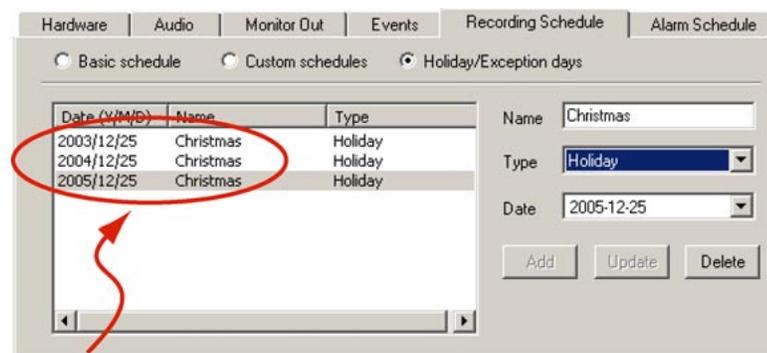
Duplicate a holiday record, for each year
that you predict the Multi-Media unit will be in use.

Fig. 82. Specifying a holiday for the next few years.

➢**129 To specify holidays and exceptions on one unit**

1. Continue or start a maintenance session for the Rapid Eye site, as explained in the *Admin User Guide*.

2. Click the Recording Schedule tab.

3. Click Holiday/Exception days. See figure 82.

4. Type the day's name in the **Name** box.

5. Choose whether to list the day as a holiday or an exception by clicking the arrow in the **Type** box.

6. To enter a date, either:

•   **Type.** Click the part of the date that you want to change in the **Date** box. Use the arrow keys on your keyboard to change the number, or type a number that you want.

•   **Use the calendar utility.** Display the calendar utility by clicking the arrow next to the date box. Click the date that you need in the calendar. To go to another month, click the arrow keys next to the month/year heading in the utility. The utility disappears when a date is selected.

7. Click **Add.** The date is added in the Holiday/Exception list.

8. To duplicate a holiday record for each year that you predict the system will be in use, repeat steps four to seven of this procedure, changing the year in step six as needed.

Though holidays and exception days are set using a similar procedure, settings made on the Alarm tab apply only to alarms.
Settings made on the Recording tab apply only to cameras.

Settings for Holiday and Exception have higher priority than settings for days of the week.
For example, setting weekdays to "record" and the Holiday row to 'not record' means that recording is suspended when a holiday falls on a weekday.

➢**130 To specify holidays and exceptions on other units**

•   You have the option of repeating this procedure for other Multi-Media units in your system.

➢**131 To correct a mistake or change a date**

1. Select a holiday or exception day, as listed on the tab shown in figure 82.

2. Change the **Type** or **Name**, as needed.

3. Click **Update**.

12.1.2 Customizing Schedules

Camera and groups of cameras

You can customize the schedule of an individual camera, then assign other cameras to that schedule or to its own.

➢**132 To assign a camera, or groups of cameras, to a schedule**

1. Continue or start a maintenance session for the Rapid Eye site.

2. Click the Recording Schedule tab.

3. Click **Custom schedules**. The tab displays a list of cameras, along with a schedule grid. See figure 83.

4. Select a camera that you need to assign to another schedule. You can assign each camera to either:

- **Use basic schedule.** Assigns camera to the basic schedule. See *Camera Schedule* and *Holiday and Exception*, above.

- **Use custom schedule.** Assigns camera to its own schedule. Changes to the timetable apply only to that camera. Times and days are selected as explained in 12.1.

- **Use the schedule of camera…** Assigns groups of cameras to another's schedule. Click the arrow in the box on the right-hand side of **Use the schedule of camera**.
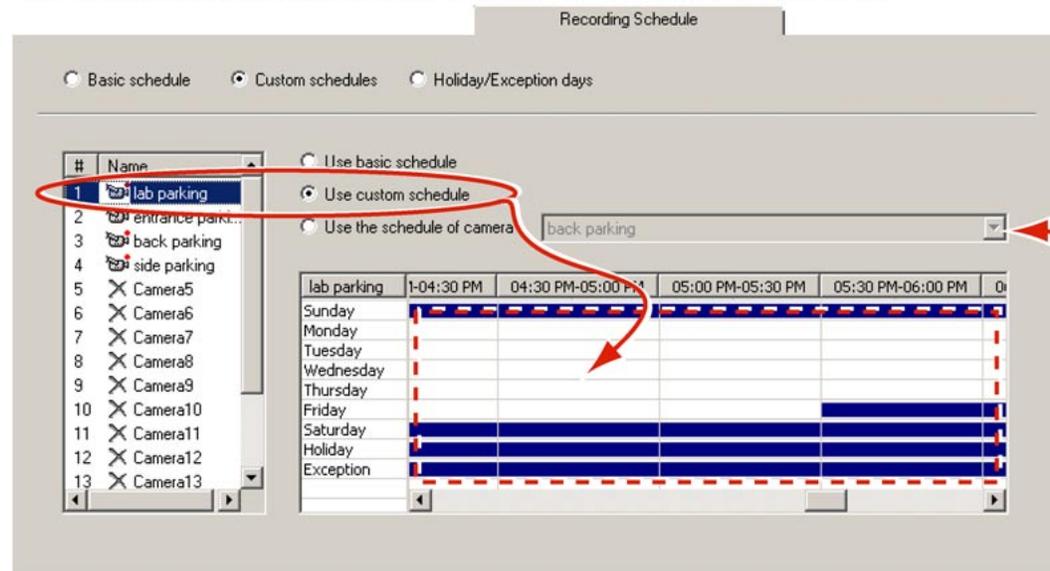
Fig. 83. Arming alarms weekends, holidays and exception days.

12.2   Alarm Schedule

Global schedule

All of a Multi-Media unit's alarms are assigned to the **alarm schedule**. Customizing the alarm schedule disarms all of the alarms at these times, on those days.

Fig. 84. Arming alarms for weekends, holidays and exception days.

Holiday or exception days

Holidays and exceptional days on the **Recording schedule** and **Alarm schedule** tabs are set using the same procedure. See 12.1.1: *Holiday and Exception*.

Though holidays and exception days are set using a similar procedure, settings made on the Alarm Schedule tab apply only to alarms.
Settings made on the Recording tab apply only to cameras.

Settings for Holiday and Exception have higher priority than settings for days of the week.
For example, setting weekdays to not "trigger alarms" and the Holiday row to trigger alarms means that alarms are tripped when a holiday falls on a weekday.

Please continue.

13 Find-it

13.1   Knowledge Base

13.2   Tables

13.3   Illustrations

13.4   FAQs

> **These answers to frequently asked questions (faq) include recommendations and warnings by Honeywell.**

On a dial-up connection: do not use audio. Video can be corrupted by using audio over dial-up. Live video can be combined with audio only on a network connection.	2–1
"Stream" identifies the different feeds—video, audio or data—coming through a Multi-Media unit.	2–2
Closing unnecessary camera windows can increase the speed of video feeds from that site, most noticeably when connected using dial-up.	2–4
The Video quality of recording is customized globally.	2–7
"UTC" is also known as Greenwich Mean Time (GMT).	2–7
Customizing the time reference does not change the time on your Multi-Media unit or your PC. Only the display changes. See also 6.9.1: *Setting the Date for Correct Alarm Sorting*, p. 6–20.	2–8
Higher refresh rates can alleviate eye fatigue when monitoring video over time.	2–10
The setting for the resolution of recorded video does not change when live video alters its resolution on-the-fly.	2–10
For live work, video at higher resolutions makes more use of the processing power of an operator's PC.	2–11
Set a Multi-Media unit to use either NTSC or PAL cameras; both types cannot be used on the same unit.	2–11
You can run retrieval and live sessions concurrently, from one or many sites.	3–1
Dial-up connections cannot achieve playback speeds much greater than 2x, even if the Speed Slider is set at higher values.	3–3
"Top-of-the-minute" means that the jump-to-time slider rounds partial minutes to the earliest time.	3–4
Power outages and so on, can temporarily stop a unit from recording. When recording resumes, there is a "hole" in the video archive. These holes can cause the later media indicator to appear.	3–5
Recorded video cannot be retrieved at a higher resolution than the one at which it was recorded.	3–6
Set a Multi-Media unit to use either NTSC or PAL cameras; both types cannot be used on the same unit.	3–7
Honeywell recommends that changes to camera settings be tested by running Live and Retrieval sessions, by a View operator or by the Multi SA.	4–2
Motion search works only if "motion detection" was enabled during the recording of the video that you plan to search.	5–1

14 Index

A

account right: PTZ, to use, 2–16
action tab, 1–2
alarm. *See also* event; acknowledge
automatically, 6–3; handling options, 6–3;
limiting callbacks, 6–3; make clip
automatically, 6–3; options, 6–3
alarm bell, and audio interference, 8–4
asterisk: in regular expression, 11–4; in tear-
away player's title, 2–4
audio: Eagle Audio, 8–4; listening to, 8–1; live,
8–1; many View operators, 8–1, 8–2; monitor,
8–3; record, 8–3; soundcard needed, 8–1;
toolbar, 8–1
auto-focus. *See* PTZ, commands
auto-iris. *See* PTZ, commands

B

best fit, camera window, 2–13
bitmap of video. *See* stills, bitmap
blind spot: vehicle docking, 4–4
brightness, camera parameter, 4–1
Butterworth–Heinemann. *See* Kruegle

C

calendar utility, retrieval, 6–19
camera. *See* stream; configuring, 4–2; groups
of, scheduling, 12–4; image quality. *See* video
feed, quality; parameters, 4–1; rename, 2–9;
scheduling, 12–2; settings. *See* video feed;
time zone at Multi-Media unit (RTZ), 2–7
camera lens, hampered by: blind spot, 4–4;
condensation, dust or grease, 4–4; strong or
weak lighting, 4–4
camera window: customize; initial size, 2–13
camera, position, 5–15
*CCTV Surveillance, Video Practices and
Technology*. *See* Kruegle
chart of motion frequency: double-clicking a
bar, 5–11; selecting items, 5–8
clear all, search for motion command, 5–6

clip: automatic, during alarm, 7–3; coarse editing,
7–6; compare, 7–6; definition, 7–1; deleting, 7–
4; Go To command, 7–6; recorded video, 7–2;
time gap, 7–6; viewing, 7–5
ClipView, 7–5
coarse editing: clip, 7–6
condensation, on camera lens, 4–4
configure: camera(s), 4–2
contrast, camera parameter, 4–1
cropped video feed in camera window, 2–15
cue, of motion to appear in video, 5–11
customer device: defining, 11–5; rules, 11–5
customer events: defining, 11–5
customer support, 1–7
customizing: initial size of camera window, 2–
13; motion search report, 5–15, 5–16;
scheduling of alarms, 12–5; scheduling of
cameras, 12–4

D

darkness, and camera lens, 4–4
DAU. *See* Multi-Media unit, historical note
Defensible Space. *See* Newman
double-sizing a stream, 2–6
dust, on camera lens, 4–4

E

Eagle Audio, 8–4
end: maintenance session, 6–12
event: alarm options, 6–3; alarm, deferred report,
6–21; alarm, immediate report, 6–21; alarms,
preparing to receive, 6–4; alarms, scheduling,
12–5; customer, defining, 11–5; customer-
device, 6–10, 6–15, 6–16, 6–17, 11–5; Multi-
system, 6–15, 6–16, 6–17; outside world, 6–10,
6–15, 6–16, 6–17; video from time of alarm, 6–9;
View operator, 6–15, 6–16, 6–17

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